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ABSTRACT

An examination of the lifelong learning aspect of the central and nationwide curricula in Sweden has been made by the UNESCO Institute for Education. The concept of lifelong learning is defined and criteria for developing positive attitudes and opportunities for its development are discussed. The analysis of the curricula in the basic and upper secondary schools involved five main criteria, with a number of subgroups within each: (1) horizontal integration; (2) vertical integration; (3) individual maturity--self realization; (4) autodidactic--development of readiness for new learning and relearning; and (5) directing studies toward creativity, flexibility, and equality. Discussion of the curriculum analysis takes up more than half the document. No empirical research was undertaken for this report, but already completed studies concerning school curriculum analysis in Sweden were investigated and are discussed with reference to the five criteria used in the analysis. Conclusions state that school curriculum and everyday school activities do not necessarily correlate, with the desired development of attitudes towards lifelong learning being neglected. Adult education is briefly discussed in terms of developing lifelong learning concepts among adults and educators alike. (LH)

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Fredriksson, L. & Gestrelius, K.:

LIFELONG LEARNING IN SWEDISH CURRICULA

No. 48 August 1975

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LIFELONG LEARNING IN SWEDISH CURRICULA

Lennart Fredriksson & Kurt Gestrelius

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The Unesco Institute for Education at Hamburg has taken the initiative in an international research project on the lifelong learning of the curricula of the school. In this project participate Sweden, Japan and Rumania. Common to these countries is that they have curricula applicable to all the country. This report describes the results from the Swedish part of the work. Lifelong learning is defined. Some criteria of what seems favourable for the development of good attitudes to and abilities in lifelong learning were produced. Starting from these the general part curriculum of primary (Lgr 69) and secondary school (Lgy 70) were analysed and assessed. The summary of the committee on the inner work of the school has been dealt with in the same way. The analyses showed that the Swedish curricula meet most of the applied criteria.
In the Swedish part of the project none empirical research was done to see how well the curricula are applied in real school work. Some already finished school research projects concerning this question were however analysed. The analyses show that the concrete work of the school does not correspond to the demands of the curricula. But there are groups of teachers who are working in a way which is supporting the development of the lifelong learning.

Keywords: Categorization pattern, content analysis, curriculum analysis, lifelong learning

CONTENTS

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INTRODUCTION 4

1. THE CONCEPT OF LIFELONG LEARNING 5
    - 1.1 Conditions for and discussion on lifelong learning 5
    - 1.2 Educational needs 6
    - 1.3 The school for children and adolescents 8
    - 1.4 Adult education 8
    - 1.5 The three components of learning 10
    - 1.6 Learning or education 11
    - 1.7 Characteristic features of lifelong learning 12
    - 1.8 Putting lifelong learning into operation 13

2. THE PROCEDURE FOR ANALYSIS OF THE CURRICULA 16
    - 2.1 A preliminary criteria list 16
    - 2.2 Method of evaluation 24
    - 2.3 Checking evaluator agreement 25
    - 2.4 Definitive criteria list 26

3. RESULTS OF THE ANALYSES 34
    - 3.1 Curriculum for the basic school (Lgr 69) 34
    - 3.2 Curriculum for the upper secondary school (Lgy 70) 34
    - 3.3 Committee on the internal work of the school (SIA) 35
    - 3.4 Distribution of the extracted units over criteria and curricula sections 36
    - 3.5 Horizontal integration 39
        - 3.5.1 Curriculum for the basic school (Lgr 69) 42
        - 3.5.2 Curriculum for the upper secondary school (Lgy 70) 47
        - 3.5.3 Committee on the internal work of the school (SIA) 51
    - 3.6 Vertical integration 53
        - 3.6.1 Curriculum for the basic school (Lgr 69) 55
        - 3.6.2 Curriculum for the upper secondary school (Lgy 70) 59
        - 3.6.3 Committee on the internal work of the school (SIA) 61
    - 3.7 Individual maturity - self-realization 62
        - 3.7.1 Curriculum for the basic school (Lgr 69) 64
        - 3.7.2 Curriculum for the upper secondary school (Lgy 70) 70
        - 3.7.3 Committee on the internal work of the school (SIA) 72
    - 3.8 Autodidactics - development of readiness for new learning and relearning 72
        - 3.8.1 Curriculum for the basic school (Lgr 69) 77
        - 3.8.2 Curriculum for the upper secondary school (Lgy 70) 86
        - 3.8.3 Committee on the internal work of the school (SIA) 91
    - 3.9 Centring the studies on creativity, flexibility and equality 95

3.9.1 Curriculum for the basic school (Lgr 69) 97
3.9.2 Curriculum for the upper secondary school (Lgy 70) 100
3.9.3 Committee on the internal work of the school (SIA) 102

4. THE INTERPRETATION AND APPLICATION OF THE CURRICULA 103

4.1 Interpretation of the curricula 103
4.2 Overall goals in general 105
4.3 School work and the demand for horizontal integration 106
4.4 School work and the demand for vertical integration 108
4.5 School work and the demand for measures for individual maturity - self-realization 110
4.6 School work and the demand for the development of autodidactic ability - development of readiness for new learning and re-learning 113
4.7 School work and the demand for the studies to be focussed on creativity, flexibility and equality 120

5. SUMMARY AND DISCUSSION 123

REFERENCES 127

INTRODUCTION

This Unesco research project is being conducted simultaneously in Japan, Rumania and Sweden. Each of these countries has a central, nationwide curriculum. The project was planned at the Unesco Institute for Education in Hamburg, February 18 - 28 1974, under the guidance of the director of the Institute, Dino Carelli, and its technical director, R.H. Dave. Dr. T. Eisemon, USA and Dr. G. Maslany, Canada were other members of the Institute who also participated. Japan was represented by Professor Kentaro Kihara and Dr. Eiichi Kajita. Rumania's representatives were Professor Leon Topa and Dr. Costache Olareanu. The Swedish delegates were Docent Kurt Gestrelius and Dr. Lennart Fredriksson. During the preparatory work in Hamburg, a preliminary list was made of criteria for what a curriculum should contain in order to encourage lifelong learning. It was also decided to find out the extent to which school work really reflects the intentions of the curricula.

The Swedish part of the work has been carried out at the request of the Swedish Board of Education, which has also financed the work. The project has been conducted at the Department of Educational and Psychological Research, Malmö School of Education, during the budget year 1974-75.

Professor Sixten Marklund has been responsible for the contact between the project and the Swedish Board of Education and he has especially in the preparatory phase of the project influenced its design and realization.

1. THE CONCEPT OF LIFELONG LEARNING

1.1 Conditions for and discussion on lifelong learning

Learning is what we call the acquisition of new behaviors as a result of experience. This process is most active in the earliest years, but can be retained throughout life. Basic textbooks in education provide theories and postulations about what learning is and how learning can be made easier. These theories and postulations can be summarized as by Jessup (1969), who saw learning as being dependent on (1) curiosity, (2) imitation and (3) play. The curiosity is expressed in the need for investigation and orientation. When a new objects is perceived through sight or hearing, the child seeks contact with it, examines it, feels and tastes it. Investigations that produce pleasant experiences lead to a desire for repetition, while unpleasant experiences cause the child to avoid a repetition. The need to imitate also has an important role in the learning of the young. It is above all in this way that children learn a language. Play is also of great importance for the learning of knowledge and skills. Skilful educators base the education on the inborn needs that are expressed in curiosity, imitation and play. These three needs continue throughout life, even though the intensity is reduced and they are successively replaced by other needs. The psychology of learning has shown that learning is most effective when it is motivated by a need experienced by the individual. Hull's arguments on primary and secondary motivation as a foundation for all learning form the context of our discussion on lifelong learning.

Hull's theory is that learning is dependent on its motivation-satisfaction effect. The behavior that most effectively leads to satisfaction of the individual's needs is learned and reproduced, while the less satisfying behaviors are eliminated. According to this line of argument, all learning is dependent on needs and the reduction of needs. (Madsen, 1967.)

A human being finds his/her way to the kind of environment that he/she finds most promising for the fulfillment of his/her needs. Technical progress has not only given us more leisure time but also in some cases reduced our chances of finding satisfaction in our work. This is important since work had been the most important area within which it had been possible to obtain basic satisfaction of psychological needs. These unfulfilled needs can be important for society, since they make demands on the different branches of adult education. It is obvious that the psychological needs of different age-groups must be allowed to steer education in both content and methods. (Gestrelius, 1970.)

In the education of children and adolescents the methods used can be described as "guardian education", i.e. the education is steered not by the individual student's search for knowledge but by curricula that apply for everyone. This follows the theory that children do not know what is for their own good. There have been some changes in recent years, however, even in the education of children and adolescents, and attempts have been made at letting the students participate in planning the teaching. "Guardian education" appears to us to be unsuitable in the field of adult education. Here it should be possible to form the education so that it fulfils the self-experienced learning needs of the students.

1.2 Educational needs

As a concept, educational needs can have different implications. It is possible to speak of quantitative and qualitative educational needs. The quantitative needs refer to the volume of the education, the number of students, the number of teachers and educational administrators, study materials, premises and equipment.

The qualitative educational needs are of a different nature and can be said to be associated with the knowledge, skills and attitudes that one wishes the education to lead to. Thus qualitative training needs are linked to the pedagogical goals and content of the education.

One should not speak of educational needs independently of the ends one wishes to achieve in society by means of education. Nor should one deal with educational needs without being quite certain whose wishes concerning education are being dealt with. In this particular discussion we would like to start from the individual's need for learning. This is because families, social institutions, organizations and states consist of individuals. Starting from the needs on the individual need not involve any neglect of the demands made by the various collective bodies on the individual, but simply emphasises the fact that the demands of the collective bodies concern nothing less than the behaviors of the individual. The state, which encompasses both the physical environment (the country) and the social environment (the people), has for thousands of years developed into its present form with its institutions and its written and unwritten laws. If we call the physical and social environment 'society', the representatives of society can claim that the educational need is tied to the expectations that society has of the individual. The situations that the individual faces in society lead to expectations that society has of the individual. The situations that the individual faces in society lead to expectations that can mean a demand for education. It is essential to point out here that this line of argument need not lead to static educational goals. Society's expectations can very well include a wish for changes in ownership - changes that imply a development towards meeting new demands in society. (Gestrelius, 1972.)

But the individual can naturally also have expectations, both of the situations he meets in society and of the way of meeting these situations. The individual can also have expectations of changes in his role in society and of changes in society itself. These expectations of the individual can result in special learning needs.

People face different problem situations at different periods in their lives. The young person meets other problems than those facing the middle-aged man, while the old-age pensioner is again faced by new problems.

Following this line of argument, we can briefly summarize our view of education as follows: Education should be planned from the viewpoint of the problem situations with which the students are faced. The problems should be self-experienced. Thus the student should be so aware of the problems that he himself asks for specially arranged education or makes use of the opportunities offered by society for self-studies. It is the responsibility of educational planners and educators to help people become more aware of the problems.

One prerequisite for the argument about lifelong learning is the conviction that people can continue to learn throughout their lives, even after childhood and youth. But in this connection is must not be forgotten that powerful earlier educational needs can be weakened almost to the point of non-existence if there have been no opportunities for satisfying them during a succession of years. The problem is greates in groups of adults with only elementary school education living in environments with little educational stimulus. When an adult has learnt to do a job and has work, there is often nobody who stimulates him to continue studying. There is an obvious need here for catchment activities that can stimulate the impulse for further education. We know that former educational needs can be revived if they are only given the right environmental stimulus and that new educational needs can arise when a person is faced with a new situation in life, which involves new expectations from the environment.

1.3 The school for children and adolescents

Sweden has a nine-year compulsory school, the basic school. It is divided into grades and has three school levels. The primary level consists of grades 1-3, the middle level of grades 4-6 and the secondary level of grades 7-9. Students normally start school in their seventh year.

Before starting compulsory schooling, children can participate voluntarily in pre-schooling. The pre-schools are organised privately or by the local authorities. From July 1 1975 all 6-year-old will have legal right to a place in a municipal pre-school. At present approx. 75 % of 6-year-olds attend these pre-schools.

Before the age of six about 8 % of the children attend municipal pre-schools at present, plus those who attend the private pre-schools.

After the compulsory school the students can voluntarily continue in the upper secondary school. This school has 2-4 grades. 80-90 % of all adolescents leaving the basic school continue to the upper secondary school. This school has both theoretical courses that are preparatory to continued studies at the university and colleges, and vocational courses that more directly prepare the students for work after the upper secondary school. (Marklund, 1972, 1974.)

The work of the basic school and the upper secondary school is regulated by central national curricula. The most recent curricula for the basic school (Lgr 69) was passed by the Swedish parliament in 1969, while the upper secondary school got a new curriculum (Lgy 70) in 1970. The curricula contain a general section, schedules for the amount of hours to be spent on each subject and a number of supplements taking up general principles for the planning of the school work in different subjects. Although the curricula are in principle national, there is relatively wide scope for local adaptations.

1.4 Adult education

Adult education can be defined in different ways. According to a common Swedish definition adult education is such an education which is continued after completed or broken off basis education and after some time of working life experience. This education is often divided into three different sectors according to the aims of the activities: general adult educational associations municipal and state adult education and labor market training.

Since they were first started more than 130 years ago, the Swedish municipal public libraries have been one of the most important instruments in adult education - the only instrument at first. In 1868 the first folk high schools were founded. Their number has increased successively and at present there are over a hundred. Roughly half of these schools represent different popular movements (political parties, trade union organisations, religious associations, athletics associations, the temperance movement). The other half of the folk high schools are so called county schools. The common feature of all the folk high schools is that the education is usually residential. Since 1948 there are in Sweden 10 independent adult education associations which, like the folk high schools mentioned above, represent different popular movements and interest organizations. They work mainly with study circles and are like the folk high schools not bound by the curricula.

Municipal adult education was introduced in 1968. The purpose of this form of adult education is to satisfy the need of adults to complement their education prior to further studies. The education gives qualifications and leads to merits. Municipal adult education is organized as a basic school and upper secondary school for adults. The teaching mainly takes place in the evenings on a part-time basis, but there are also day courses for full-time students. To a large extent the premises, curricula, teachers and study materials of the basic school are used. The schedules are greatly reduced, however, compared to the basic school.

Labor market training is vocational training for adults that is motivated by employment policies. The training has two main purposes: to make it easier for the unemployed and handicapped to start new jobs and to increase the supply of skilled labor within the sectors where it is lacking. Thus this training is an important instrument for active labor market policy and forms at the same time a substantial part of the education organized by the community. (The Pedagogical Committee, 1974.)

In our opinion this restriction of adult education to the four forms, folk high school, adult education associations, municipal adult education and labor market training presents far too narrow an image of the concept of adult education. It is also difficult to accept on the grounds of learning psychology and pedagogics that limitation which is given by the demands for completed or broken off basis education with following working life experience. We consider that the concept of adult education should be linked to all forms of education in which adults participate. There is admittedly some difficulty here in deciding when to count a person as an adult. In the literature on adult education the concept of adulthood is defined in different ways. The biological definition works from variables such as sexual maturity and the achievement of maximum height. The chronological definition is based simply on age and the simple assumption that as an adult one has gathered more experience that before one became adult. Finally the sociological definition is based on the well-known circumstance that one is considered more responsible as an adult than as a child and adolescent and that as a result one gains the right at different ages to drive motor vehicles, get married, become of age and have the vote in political elections. In Sweden one comes of age at 18, ant than gets the mentioned rights.

We would simply maintain that adult education is the kind of education in which one participates from the age of 18 and upwards. This approach means that in addition to the forms of education mentioned earlier, we must also count as adult education business training (both the private and public sectors), military training and university and college training. One very good reason for using the term adult education in this more extensive manner is that the same person can during as short a period as one year participate in several of these different forms of training. Since within adult education the content, work forms and evaluation methods of the education should be dependent primarily on the students' own educational needs, interests and other attributes, it is only reasonable to link the concept of adult education to the students and not to the organizational forms and goals of the education.

1.5 The three components of learning

Before presenting our criteria for what we consider favourable to lifelong learning, we would like to attempt briefly to determine our view of learning generally. In our opinion learning has three equally important components. Following More (1974) we can call these three intellectual (cognitive), emotional (affective) and behavioural (behaviouristic) components. Real learning cannot comprise only one or two of them, but must encompass all three.

The intellectual component in learning concerns what one knows and understands and this leads to thinking and believing. An example is that one can be very well aware that typing with all the fingers in accordance with some recognized system would be much more effective than the two-finger system one uses. But until one stops using the two-finger method and trains a new skill according to a planned system, the awareness of this system remains simply intellectual.

The emotional component in learning concerns the personal evaluation of what a certain piece of knowledge means to one - the extent to which it can be incorporated into one's own personality and system of values - and this is expressed in the individual's arguments. The price paid for this is often a temporary lack of assurance and fear of failure.

Finally the behavioural component of learning concerns how we in our actions adjust ourselves to our physical and social environment by virtue of our knowledge and values. Thus the component concerns our working methods, our skills, what we do and how we do it at work and in our leisure time.

Ever since it became institutionalized, teaching has been centred mainly on the purely knowledge component and to a large extent it is so still. Knowledge and understanding can be stored in writing and are without effect as long as they are stored there. There is a lot of knowledge about lifelong learning in the curricula of the basic school and the upper secondary school, but as long as it is confined to the school staff this knowledge will have no effect. Skinner's educational technology, for example, can be regarded as an attempt to find forms for a theory of education that included the behavioural component of learning. It can also be said that educational technology is an attempt to bridge the gap between the theory and practice of the psychology of learning. Too strong an emphasis on the components of knowledge and behaviour can easily lead to neglect of the emotional component on learning and a consequent lack of balance in the learning system. At present we are experiencing an increase in the stress placed on the emotional element of learning. In Sweden this is mainly taking the form of an accentuation of cooperation, personality development and other important factors in a democratic development of personality. We can now only hope that this well-needed emphasis on the emotional component of learning will not lead to the knowledge and behavioural components in their turn being set aside.

1.6 Learning or education

In this report we often use the term "lifelong learning" and not "lifelong education". This is because we think that the word learning suggests the individual's own activity in connection with learning. Behind this lies the educational hypotheses: The individual himself is the only person who can be active in such a way that learning takes place - all that an educator can do is to create suitable conditions for learning and stimulate the student's activity. The attitudes, knowledge and skills that are included in lifelong learning are not only those linked to the study situation itself, but also interest in and the ability to exploit the opportunities for learning offered by the community. This is particularly important in a technologically advanced society such as that in Sweden, with a free, extensive and many-facetted supply of opportunities for learning. We want to include among these opportunities not only those that are specially organized (courses, conferences) but also the more haphazard, unplanned ones (conversation, newspaper reading, listening to the radio). Thus lifelong learning encompasses the activities of an individual or a group that lead to learning, whether this is consciously planned or takes place more randomly, perhaps by chance. This approach is of great importance when explaining how one is to facilitate and render more effective the ability of the individual for lifelong learning.

1.7 Characteristic features of lifelong learning

In his book Lifelong Education and School Curriculum, R.H. Dave (1973), has on the basis of a number of works on lifelong learning summarized the characteristic features of this concept. Taking this summary as a starting point, we wish in the following points to clarify what we mean by lifelong learning.

- Learning does not start at the beginning of formal schooling and is not completed at its finish, but is a lifelong process. Lifelong learning continues throughout a person's entire life.
- Lifelong learning is not restricted to bridging education, recurrent education or even adult education, it encompasses all forms of organized education.
- Lifelong learning includes both formal and informal educational models, both planned learning and coincidental learning.
- The home plays a decisive but elusive part in starting the process of lifelong learning and continuing the process.
- The community also has an important role in lifelong learning from the moment when the child and the community start to influence each other mutually and it continues throughout the lifetime of the individual to exercise its educational function in both vocational training and general education.
- Educational institutions such as schools, the university and other educational centers are naturally of great importance for lifelong learning, but only as one part of the factors that influence lifelong learning.
- Lifelong learning should be included in every stage of a person's life,

so that maturity and a feeling of self-realization is achieved for this stage and so that the individual prepares for the next stage in order to improve the quality of his personal, social and professional life.

- In contrast to the forms of education that lead to selection of an elite, lifelong learning encompasses all categories and represents a democratization of education.
- Lifelong learning is characterized by flexibility and an abundance of content, study material, study techniques and learning occasions.
- The implications of the term "quality of life" depends on the society's system of values. It depends among other things on the political system, social traditions, economic conditions and the general feeling of what "a good life" represents. The ultimate goal for lifelong learning is to uphold and improve the quality of life.
- Lifelong learning should function as an effective tool for change. It should lead to an improvement of the conditions of life and the quality of life and should stimulate the individual into an active commitment and participation.

1.8 Putting lifelong learning into operation

If lifelong learning is to be more than a good idea and an idealistic point of discussion, it is necessary to find out which social and individual conditions activate and support continuous learning. Lifelong learning requires certain fundamental attitudes, knowledge and skills in the individual. In addition it makes certain demands on society in general and educational organization in particular.

In our opinion the demands placed on society by lifelong learning involve the individual's access both to information media, cultural institutions and organized education, and to a rich, multi-facetted content in these media and organisations. By rich and multi-facetted content we mean not only a multitude of subjects but also that different ideologies, values and philosophies are presented in the information media, cultural institutions and courses of education.

More concretely lifelong learning demands that every individual technically has good access to daily newspapers and magasines, journals, books, radio and television, together with ample opportunities of visiting cinemas, theaters, concert halls, libraries, museums and art galleries and those courses which are organized by e.g. labor market training, people's high schools, education at the place of work, municipal adult education and general adult educational associations. The second demand regarding the content of what is presented thus has two sides: one is the range of subjects that can be studied, such as languages, mathematics, social science, history, religion, psychology, biology, physics, chemistry, medicine, technology, art and music; the other concerns the values and outlook of what is taken up. This in its turn implies a demand that problems should be freely discussed from e.g. different political, religious, philosophical and ethical points of view. The demands made by lifelong learning on society also include the catchment activities mentioned earlier that aim at stimulating and facilitating learning for groups that otherwise easily find themselves in a situation in which they cannot profit from the information and culture offered by society.

The demands made by lifelong learning on the individual will mainly concern his readiness to learn, his will and ability to see, listen, observe, speak, read, write and calculate. Further, lifelong learning will make demands on the individual's will and ability to plan, evaluate, experiment and discover, to find and exploit the information and culture media that society has to offer. He should know and be interested in how to get information about the various schools and courses provided by society. Another demand made on the individual is that he should be able to cooperate with other students and with teachers. Cooperation requires adaptation to others, in group work for example. When studying, the individual should not only ask what he personally can gain from cooperation, but also think of how he can help others. In this way the demands made by lifelong learning on the individual can be used to form a link between on the one hand the elementary and secondary school and on the other all forms of adult education. By deciding and formulating criteria for what in society, the juvenile school and adult education is favourable to lifelong learning, it will be possible to suggest measures that better satisfy the demands inherent in the criteria.

In this report we shall present the system of criteria that we have constructed and used to evaluate the curricula of the Swedish basic school and upper secondary school from the perspective of lifelong learning. We have also in the same way tested and evaluated a short summary of the report presented by the Swedish State Committee on the internal work of the school (SIA).

If one is interested in how in reality the school favours or disfavours continuous learning, it is naturally not enough to study the curricula - however important it may be to know whether they in themselves encourage lifelong learning. It is also necessary to get some idea of the extent to which the intentions of the curricula have been put into practice in the schools.

We have not personally carried out any empirical studies of school work. Instead we have made use of some investigations into practical school work in the basic school and the upper secondary school that have been conducted by other research teams. These investigations have been carried out within the framework of projects lasting several years that have goals other than to study the extent tho which school work favours lifelong learning. Despite this the investigations can give us some information about how practical school work functions from the point of view of lifelong learning.

2. THE PROCEDURE FOR ANALYSIS OF THE CURRICULA

As have been pointed out previously analyses have been made of the curricula for the basic school (Lgr 69) and the upper secondary school (Lgy 70). In addition we have analyzed a summary of the proposition put forward by the State Committee on the internal work of the school, SIA. The proposition is called "The working environment of the school" (SOU 1974:53, pp. 38-62).

The aim of our work has been to investigate the extent to which the Swedish curricula encourage lifelong learning. The purpose of the study of the proposition mentioned above is to influence the pattern of school work for the years immediately ahead.

2.1 A preliminary criteria list

The above-named analyses have been made in accordance with criteria worked out in cooperation with research teams from Japan and Rumania. The list of criteria presented below has been adjusted somewhat since the preparatory conference in Hamburg, but largely contains the criteria and the arrangement on which those participating in the conference had decided. The criteria have been divided under five main headings, with a number of sub-groups within each main heading.

Criteria for the evaluation of school curricula in the perspective of lifelong education

A. Horizontal integration.
B. Vertical articulation.
C. Individual and collective growth.
D. Autodidactic.
E. Directing the studies towards equality and critical thinking.

A. Horizontal integration

1. Integration school-home
1.1 Parents' meetings in the school
1.2 Tasks for parents in the school
1.2.1 Giving the parents information and the opportunity of stating their views on the implementation of a new curriculum
1.2.2 Active cooperation of the parents in planning the daily program of their children (not only school work, but also out-of-school activities)
1.2.3 Opportunities provided for parents to participate in major events involving the school and their children (e.g. starting school, beginning of new school year, change of teacher, choice of optional subjects etc.)

1.2.4 Form and degree of parents' involvement in the functioning of the school

1.2.5 Existence of parent-teacher associations, frequency of their interventions and degree of their influence

1.3 Special staff members visiting the home

1.4 Special training in the home

1.5 Cooperation between school and social welfare authorities in tackling social obstacles to the students

1.6 Special tasks and responsibility of the school towards the home

1.6.1 Participation of home in assessing the daily situation of the student

1.6.2 Measures to improve the student's learning situation in leisure hours outside home

1.6.3 Channels of communication between school and home (their availability and frequency of use)

1.6.4 Availability of major channels of communication between the various administrative educational levels and the parents (Ministry of Education, district authorities, local authorities, school authorities; radio programs for the parents, printed material for parents etc.)

1.6.5 Adequacy of the school language for the cultural and educational level of the home

1.7 Using the students' home experience in the school work

1.7.1 Making school tasks and home complementary

2. Integration school-society (local, regional and central)

2.1 Cooperation with central authorities

2.2 Cooperation with regional authorities

2.3 Cooperation with local authorities

2.4 Cooperation with voluntary associations and organizations

2.5 Cooperation with police

2.6 Contribution by the school to the solution of community problems and vice versa

2.7 Study of community problems

2.7.1 Readiness to deal with local, national and international problems and make use of their educational consequences

2.7.2 Measures for obtaining feedback information for the next cycle of curriculum renewal

2.8 Use of community resources

2.8.1 Information to students about new educational opportunities in society

2.8.2 Recognition of the needs of employers of school leavers and further education institutions in system used for evaluating students

2.8.3 Giving the community information and opportunities for stating its views on the implementation of a new curriculum

2.9 Community activities in the school

2.10 Way in which the problems are tackled by various institutions

2.10.1 Extent and means by which individuals at different age-levels can participate in solving social problems

2.11 Adaptation of implementation strategy to existing conditions (the present educational system, teaching aids, teachers, administrative staff, financial resources)

2.11.1 Coordination of strategy of implementation with national socio-economic planning

2.11.2 Active participation of students, teachers and heads of schools in the process of implementation

2.11.3 Provision for reorientation and supply of adequate materials to teachers and heads when introducing a new curriculum

2.11.4 Reorganization and reequipment of the school programs and materials to suit new curricula

2.11.5 Provision of adequate period of time for readjustment of school programs as required by the new curriculum

2.12 Appreciation and understanding of changes by supervisors

2.12.1 Measures for administrative support, periodic evaluation and monitoring of implementation, and diffusion of such information to others

2.13 Identification of unforeseen problems in implementation and their swift resolution

2.14 Fostering interaction between those who develop curriculum and prepare the strategy of implementation, and those who effectuate it

2.15 Consistency between curriculum and strategy of implementation

3. Integration school-working life

3.1 Visits by students to places of work

3.2 The students work at the places of work

3.3 Vocational counselling

3.4 Representatives from the world of work (e.g. parents) visit school

3.5 The school is localized at the place of work

3.6 No formal school - apprentice training

3.7 Attitudes towards work, production etc.

3.7.1 Work for monetary returns, work for social and personal returns

3.8 Direct and broad-based experience of the world of work

3.9 Scope for a variety of out-of-school activities closely connected with in-school activities

3.10 Using school knowledge in solving practical problems

4. Integrating between different fields of study

4.1 Integrating different subjects into fields of study, e.g. economic questions, consumption, sexual questions and cohabitation, social roles, environmental protection, international questions, traffic safety, problems connected with alcohol, drugs and tobacco

4.2 Promoting understanding between different fields of study

4.2.1 Using knowledge and skills from different fields of study

4.2.2 Developing competence in applying the tools of learning and methods of inquire in different fields of study

4.3 Understanding of the basic unity of knowledge

4.4 Identification of common and unique elements of various disciplines

4.5 Integration of various disciplines as may be evident in: survey exercises, selection of illustrations, mode of organization and presentation of content

5. Integration of different functions, e.g. cognitive, manual, emotional, aesthetic, physical, social

5.1 Ability of the students to acquire and use knowledge and skills in school subjects

5.2 Ability and skills of the students in manual and physical work

5.3 Emotional and professional maturity

5.4 Ability of the students to acquire and express aesthetic values

5.5 The adjustment of the students to the physical situations of life

5.6 The participation of the students in the activities of society and their ability to cooperate

6. Integration school mass media, e.g. press (daily, weekly, periodicals), radio, television

6.1 Catching and dealing with those problems in school that are taken up by mass media

6.2 Using mass media programs dealing with various fields of study

7. Integration school - cultural life

7.1 School - film.

7.2 School - theater

7.3 School - music

7.4 School - sports.

B. Vertical articulation

1. Articulation with the pre-school experience

1.1 Readiness to profit from pre-school experience

1.1.1 Study of the readiness and interest of pre-school children in using opportunities for learning

1.2 Provision for remedial measures where needed

1.3 Formal conferences between the pre-school teachers and the basic school teachers

1.4 Opportunities for the pre-school students to visit the basic school

1.5 External sequencing and linkage of different curriculum areas with the pre-school experience (pre-school curriculum?)

2. Articulation between different school levels

2.1 Opportunities for formal conferences between different levels

2.2 Coordination within the same field of study between different levels

2.3 Consideration of organized learning opportunities available outside the school as parallel programs

2.4 Lateral transfer and multi-entry system

2.5 Internal sequencing and organization of content in a particular curriculum area from level to level

2.6 Provision for continuity and smooth transition from one school level to another

2.7 Comprehensive approach to devising a strategy of implementation (i.e. taking into account the implications for all levels, types and forms of education)

3. Coordination between school and different kinds of adult education

3.1 Coordination school-university (higher education)

3.2 Coordination school-adult education organizations

3.3 Coordination school-municipal adult education

3.4 Coordination school-adult continuation school

3.5 Coordination school-labor market training

3.6 Coordination school-education in industry

3.7 Information to the students about the organization, working methods and entrance requirements in adult education

C. Individual and collective growth

1. Self-realization

2. Multi-dimensional maturity: physical, intellectual, emotional and social

2.1 Growth of emotional, social æsthetic, physical and manual ability

3. Understanding and renewing different systems of values

3.1 Analyzing one's own system of values and that of society

4. Growth of adaptability and ability to deal with problems

5. Orientation towards the future, openness for different patterns of self-growth

6. Support of integral experiences within various areas of growth

7. Support of various voluntary activities outside school

8. Acceptance of self-evaluation as an integral part ot the total program of evaluation

8.1 Provision of opportunities for self-evaluation

8.2 Developing insight into the significance, limitations and skills of self-evaluation

8.3 Encouragement of continuous self-evaluation

9. Integration of evaluation procedures into process of learning and development

10. Promoting the values of evaluation by others in addition to self-evaluation

10.1 Encouraging openness in submitting oneself to evaluation by others

11. Opportunities in a group to evaluate individual and group performances

12. Training in looking for information in a mediatek

D. Autodidactic

1. Development of readiness for relearning and new learning

2. Development of communication skills

3. Development of self-learning

3.1 Encouragement of self-learning

3.2 Opportunities for independent learning

3.3 Support for learning at an individual speed (speed individualization)

3.4 Opportunities for participation in planning, execution and evaluation of learning, keeping in view one's own clearly identified learning needs - besides those of others in a particular group

4. Development of interlearning

4.1 Provision of opportunities for interlearning

4.2 Opportunities for the students to work in various group-sizes within the same class

5. Training in study techniques

5.1 Use of a variety of media, materials and aids with ease and discrimination

5.2 Ability to identify learning needs and competence in planning, conducting and evaluating one's own studies

5.3 Acceptance of individual differences in learning ability and way of learning

5.4 Opportunities for various ways of learning and evaluation

5.5 Opportunities for the students to make their own learning needs clear

5.6 Opportunities to develop skills in planning, conducting and evaluating their own studies according to their own learning needs

5.7 Accomodation to different styles of learning

5.8 Use of varied teaching styles

5.9 Acquisition of learning skills as well as specific information

5.10 Identification of appropriate learning aids available both inside and outside the school to suit one's own learning needs

6. Encouragement of a positive attitude towards learning
7. Development of self-confidence in the students
8. Development of a pleasant learning climate
9. Facilitating learning, using various teaching methods and aids
10. Evaluation of learning according to the student's own ability
10.1 Individual item-related evaluation instead of relative evaluation
10.2 Evaluation of learning skills and techniques in order to plan programs that meet one's own learning needs
11. Avoiding competition between individuals and groups
12. Avoiding formal graded evaluations and giving preference to descriptive evaluations
13. Opportunities to work with the same task at various levels within the same class
14. Giving the students the chance to listen, read, observe, design, credit, experiment and discover
15. Formal opportunities for freely chosen work and contacts with local voluntary associations and guidance on the resources of the community for general and vocational adult education
16. Development of basic intellectual, psychomotor skills such as critical thinking, interpretation, muscular coordination for manual activities etc.
17. Coordination between the learning needs of the students and the educational content of the school
18. Helping the students to cooperation by organization and planning of the learning content
18.1 Helping the student to make his own choice of learning sequences as he grows at school
18.2 Opportunities to develop the learning plans of the students in cooperation between students and teachers
19. Giving the student greater responsibility for his own development as he advances in school
20. Opportunities to develop an integrated view of education in horizontal, vertical and depth dimensions

E. Directing the studies towards equality and critical thinking

1. Stimulating and encouraging the retention of the students' natural inquisitiveness
2. Active contribution by the school in order to encourage students coming from environments without educational traditions to try further education
3. Active contribution by the school in order to increase tolerance and understanding among the students for students with divergent behavior
4. Equal learning opportunities for handicapped students
4.1 Encouraging the studies of handicapped students without extra cost to them
5. Equality between male and female students

5.1 Encouragement of studies that do not follow traditional sex role ideas

5.2 Teaching with a view to counteracting sex differences not founded on facts within different educational fields

6. Flexibility. Promotion of positive attitudes to change

6.1 Avoiding restricting students to fixed problem solving

6.2 Accepting alternative problem solving

6.3 Encouragement of an adventurous attitude in new situations and environments

6.4 Encouragement of positive attitudes towards experimentation

6.5 Supporting divergent thinking

6.6 Development of ability to direct changes

7. Creativity

7.1 Encouragement of free creative activities

7.2 Provision of situations for creative thinking and problem solving

7.3 Opportunities for constructive and non-cognitive creative activities

7.4 Encouragement of originality

8. Stimulating the students to be conscious of problems

9. Measures to arrange education elsewhere within fields of study not available at the school or place in question

10. Measures to enable the students to travel to the place where the desired education is available

11. Provision for local adjustment of objectives

12. Encouragement of an open attitude among students

13. Provision for alternative approaches in curriculum planning and implementation

14. Provision of alternative forms and structures of educational services

15. Emphasis on the development of varied learning skills such as keen observation, purposeful reading, coordination of eyes and hands for manual work etc.

16. Familiarity with a variety of learning aids and media

16.1 Opportunities for using alternative skills, media, and aids for learning in different situations and subjects

16.2 Encouragement to use new learning aids and materials and absorb them in one's learning strategy

16.3 Improvisation of learning aids in cooperation with pupils

17. Information about new educational resources in society

18. Use of multiple procedures for measurement

18.1 Periodic revision and adaptation of the evaluation devices, particularly with regard to certification, promotion and other purposes

18.2 Recognition of multi-dimensional aspects of learning and the consequent need for alternative and comprehensive procedures of evaluation

19. Provision for continuous monitoring, modification and improvement of implementation strategy

20. Opportunities for studies within fields of study freely chosen by the students, without entailing extra costs for them

21. Equal opportunities for studies irrespective of local restrictions

2.2 Method of evaluation

The curriculum for the basic school was the most extensive text analyzed. It was evaluated in the following way. For the first three main headings, A. "Horizontal integration", B. "Vertical articulation" and C. "Individual and collective growth", we evaluated according to one criterion at a time. We read the entire curriculum once considering A 1, "Integration school - home", once considering A 2, "Integration school-society" and so on. Before each reading the sub-categories to A 1, A 2 etc. were taken up. Thus these sub-categories were regarded as being definitions of the criteria.

The following rules were followed during the readings.

Rules

1. Read through a section of the text and mark units that provide examples of the criterion in question.
2. Comments and explanations in the curriculum connected with the chosen unit are to be included in the unit.
3. If one sentence contains units with clearly different content within the same criterion, the sentence is to be divided into several units. Hereby it can be necessary to reformulate the text of the curriculum in order to clarify the units.
4. The changes in the text of the curriculum should be small as possible. Often it will be a question of repeating the introduction to the sentence, replacing a pronoun with a previously named noun or removing a conjunction.
5. Units that apply to more than one criterion are referred with the same wording to the criteria concerned (units can thus occur under several different criteria).

When we were reading for the main criteria D. "Autodidactic" and E. "Directing the studies towards equality and critical thinking", some sub-categories were combined. For D. "Autodidactic" five readings were carried out for the following sub-categories: D 1 - D 5, D 6 - D 10, D 11 - D 15, D 16 - D 17, D 18 - D 20. For E. "Directing the studies towards equality and critical thinking", 14 readings were carried out for the following sub-categories: D 1, D 2, D 3, D 4, D 5, D 6, D 7, D 8 - 9, D 10 - 11, D 12 - 13, D 14 - 15, D 16 - 17, D 18 - 19, D 20 - 21.

The readings of Lgr 69 made us so familiar with the criteria that we considered that we could work directly with the main criteria when reading the curriculum for the Upper Secondary School (Lgy 70) and the summary of the report on the Internal Work of the School, SIA (SOU 1974-53). Therefore these two texts were read only five times, once for each main criterion. The practical method used was that we marked the text units with a pen and after the reading had the units written out on cards, with only one unit on each card. We have worked with about ten copies of the curricula and usually changed to a clean copy after each reading. On the cards with the units we have marked headings and sub-headings for the criterion in question and headings and sub-headings of that particular section of the text being studied.

Example:

Teaching

Content of teaching

A 7:17 Concerning the question of sex roles, the students should be stimulated to collect information and material for discussion from films, radio, television, teenage books, newspapers, political debate etc.

2.3 Checking evaluator agreement

The two evaluators have worked independently with the texts. It is naturally desirable that the texts be evaluated in a similar way. Therefore we started by going through a smaller section of the text together. After this both evaluators independently read a longer section from the viewpoint of the same criterion and the agreement between the units that were considered to satisfy the criterion were checked. Checks were made on two occasions. Once at the beginning of the evaluation and once when the evaluation was complete. On the first occasion a section of Lgr 69 was evaluated from the aspect of A 2 "Integration school - society". A had then extracted 74 units and B 70. A lacked 9 of the units extracted by B, while B lacked 11 of A's. A total of 83 units had been extracted of which 63 (76 %) agreed. When the units extracted by A and B were compared, it was found that on a few occasions one evaluator had a single unit that corresponded to two (and in one case even three) units of the other. We then counted only one unit for the evaluator who had made it into several units. Corresponding units could sometimes be of different length, depending on ho the units had been demarcated. These were counted as agreeing if the main content was judged to be the same. After discussions between the evaluators while the work was underway, it was decided to make the units large enough to prevent any misunderstanding about the content of the unit arising in the second check of categorization.

In the second check we worked with the criteria D 3 "Development of self-learning" and D 4 "Development of interlearning" at the same time. We marked those sections in the curriculum (Lgr 69) which were linguistically demarcated by the next section beginning on a new line and which we considered to have a content corresponding to one or both criteria. Of the 150 sections marked, 91 were in agreement (61 %). Thus we had a lower degree of agreement despite the fact that we were working with more crudely divided units.

The reason for this is probably that the main criterion "Autodidactic" and its subordinate criteria are of a more complicated nature than e. g. "Horizontal integration". As evaluators we were therefore often forced to make subjective interpretations of the content of the curricula, interpretations that often differed considerably. In general we found it easier to evaluate the curricula from the aspects of "Horizontal integration" and "Vertical articulation" than from the aspects "Individual and collective growth", "Autodidactic" and "Directing the studies towards equality and critical thinking". As a result the evaluations from the last three aspects are more uncertain.

When we demarcated the units, we tried as mentioned before to make them large enough to be comprehensible even when removed from their context. This naturally contributed to the content of the units being rather complicated. Quite a lot of units also proved to have been extracted for two or more criteria. In some cases the sub-headings of the criteria also overlap considerably.

When working with Lgy 70 and SIA, the same copies were used for all five readings. This was to make it easier to study which parts of the analyzed texts did not get marked and were thus not considered to favour lifelong learning. This method of approach also revealed, while the reading was still underway, the overlapping nature of the criteria and the complicated content of the units. Single units were extracted for all five main criteria.

2.4 Definitive criteria list

As a result of our experiences in this respect, we decided to use the units written down on cards to try to achieve a more clear-cut category system and a better classification of the criteria.

The five main categories from the original system were retained, but in some cases reformulated. After careful consideration of all the sub-criteria, many of them were moved between the different main criteria (A-E) in order to make the content of each main criterion as homogeneous as possible. The number of sub-criteria was also limited severely so as to make the classification that was to follow easier. It was possible to make these limitations since, as was mentioned earlier, many of the criteria had a similar content and differed only in the purely verbal formulation. Probably the newly-constructed schedule that resulted from this combination of criteria gives a less differentiated analysis. In return it is much easier to handle when classifying units and also makes it easier to survey the material. To give an example of the size of the limitations, it can be mentioned that in the first analysis we used seven sub-criteria for main category A, 3 for B, 12 for C, 20 for D and 21 for E. After the combination the corresponding numbers were 7 for A, 3 for B, 5 for C, 5 for D and 3 for E. Thus radical changes had been made for C, D and E. The limitations were considered necessary because of the considerable overlapping within the sub-criteria. The numbering system used in the original schedule has also been changed, since it was thought to be illogical in several cases. In the newly-constructed pattern the sub-criteria have been numbered consecutively within each main criterion. The order in which the sub-criteria are written is in itself of no significance. The only function of the numbers is to make it easier to refer to the criterion in question. The only sub-criterion that has been divided further is D 1. In the classification according to the reconstructed schedule the sub-criterion D 1 was called "Self-learning". A large number of units were placed in this category. Since the concept of self-learning was considered to be central to the discussion on lifelong learning, the D 1 units were further analyzed into the sub-criteria D 1:1, D 1:2, D 1:3 and D 1:4. The comment made earlier about the order in which the sub-criteria are written also applies here. Otherwise the numbering has been done away with altogether and the sub-criteria have been given a number of short definitions. These definitions are combinations and reformulations of the large number of sub-criteria in the original schedule. In the new description of the criteria presented below, the sub-criteria E 3 "Equality" can be thought to be rather unsuitably placed. One possibility would have been to let this criteria form its own main category. Since we wished to retain the previous arrangement in this respect, we decided to let the sub-criterion remain under main category E.

Criteria for evaluation of the curriculum for the basic school, the curriculum for the upper secondary school and the summary of the proposition put forward by the State Committee on the internal work of the school (II)

A. Horizontal integration
B. Vertical integration
C. Individual maturity - self-realization
D. Autodidactic - development of readiness for new learning and re-learning
E. Directing the studies towards creativity, flexibility and equality.

A. Horizontal integration

A 1 Integration school-home

Visits by parents to school
Visits by school staff to homes of students
Special tasks and responsibility of the school towards the home.

A 2 Integration home-society

The school's cooperation with local, regional and central authorities
The school's cooperation with voluntary organizations
Study visits by the students to social institutions
The school's orientation on society and social problems.

A 3 Integration school-working life

Study visits and trainee periods for the students at different places of work
Counselling on studies and careers
School teaching located at place of work
Students' attitude towards work and production
Students' application of school knowledge in solving practical problems.

A 4 Integration of school subjects

Integrating parts of different school subjects into larger fields of study
Understanding of the relation between different school subjects.

A 5 Integration school-mass media (daily press, magazines, periodicals, radio and television)

The school's pointing out and dealing with problems that are taken up in the mass media
The utilizing of the mass media in school work.

A 6 Integration school - cultural life

Film, theater, music, museums, libraries and sport.

A 7 Measures for the practical application of the curricula in school work

Instruction of teachers to help them transform the intentions of the curricula into practical school work

Programs of action for regional and local school authorities for the implementation of the curricula

Receptiveness of the school authorities to reactions to present syllabuses, considering future revisions of the syllabuses.

B. Vertical integration

B 1 Integration school - the students' experiences prior to starting compulsory school

Formal conferences between staff of compulsory school and pre-school

Opportunities for pre-school children to visit the compulsory school

The school's interest in studying the beginners' ability and interest in the work of the compulsory school

Linkage between the curricula of the compulsory school and the pre-school.

B 2 Integration between different school levels

Formal conferences for staff from different school levels

Organization of the school as a united basic school instead of as a parallel school system

Linkage between organization and study content of different school levels

Measures for aiding the continuity of the students' studies and promoting a smooth transference between the levels.

B 3 Integration school - adult education

Coordination school - university (college)

Coordination school - different forms of adult education

Information to the students about the organization, working methods and entrance requirements of the different forms of adult education.

C. Individual maturity-self-realization

C 1 All-round personal maturity

Intellectual, emotional, social, physical, æsthetic and psychomotor maturity

Development and integration of intellectual, emotional, social, physical, æsthetic and psychomotor functions.

C 2 Understanding and renewal of different systems of values

Analysis of individual and social systems of values

Openness to local, national and international problems and their educational consequences.

C 3 Development of self-confidence

Opportunities for students to take more responsibility for their own development as they advance through the school system.

C 4 Development of the ability to solve problems

Development of problem consciousness

Development of critical thinking.

C 5 Orientation towards the future

Openness to different forms of self-development.

D. Autodidactic - development of readiness for new learning and relearning

D 1:1 Individualization of teaching, taking into consideration the maturity, previous knowledge, interests and other prerequisites of the students.

Organizational measures to make individualized teaching practically possible

Acceptance of individual differences in learning ability and way of learning

Relation between the learning needs of the students and the content of the studies.

D 1:2 Opportunities for participating in the planning, execution and evaluation of learning, starting from the one's own learning needs and, in group work, those of the other group members

Opportunities for the students to define their own learning needs.

D 1:3 Support of and opportunities for self-learning

Support of the students' own activity in the school work

Support of learning at one's own speed

Opportunities for the students freely to choose their line of study

Opportunities for the students freely to choose study content and working methods individually and in groups

Support of the students' own initiative in the school work.

D 1:4 Development of study techniques and communication skill

Opportunities for practising observing, listening, speaking, reading, writing, planning, evaluating, experimenting and discovering

Development of learning skills

Opportunities for the students to use alternative learning skills

The teachers' use of different teaching methods and study material (educational aids)

The students' own use of different learning aids

Support of the students' own production of improvised study materials

Support of the students' own search for information.

D 2 Mutual learning between the members of a group (interlearning)

Opportunities for the students to work in groups of varying sizes

Opportunities to work with the same assignment on different levels within the framework of the group (class)

Support for cooperation between students in their school work and between students and staff working at the school.

D 3 Evaluation

Acceptance of self-evaluation as an integrated part of the school's system of evaluation

Opportunities for practising self-evaluation and development of understanding of its advantages and disadvantages

Development of students' willingness to let others evaluate their achievements

Support of evaluation by others as a complement to self-evaluation

Integration of evaluation in the process of learning and development

Avoiding formally graded evaluation and giving preference to descriptive evaluation

Evaluation of learning results in relation to the student's own ability; individual goal-related evaluation instead of relative evaluation.

D 4 Development of a favorable learning climate

Encouragement of a positive attitude towards learning

Avoidance of competition between individuals and groups.

D 5 Adaptation of curricula to local needs

Support of alternative study content and study organization.

E. Directing studies towards creativity, flexibility and equality

E 1 Creativity

Encouragement of free creative activities, creative thinking, drama activities and non-cognitive types of creative activities

Encouragement of originality, imagination, natural curiosity and spontaneous inquisitiveness

Support of divergent thinking.

E 2 Flexibility

Support from the school for the students' positive attitudes towards and ability to steer changes

The avoiding of binding students to ready-made problem solutions

The acceptance of alternative solutions of problems

Encouragement of openness and positive attitudes towards new situations and environments and towards experimentation.

E 3 Equality

Equality between male and female students

Equality for handicapped students

Encouragement of students from environments without educational traditions to continue with their studies

Tolerance towards and understanding of students with deviating behavior or special problems

Opportunities for arranging education elsewhere in fields of study not represented locally

Opportunities for students to travel to the places where the education they wish to receive is available.

All the units were classified according to the newly-constructed schedule. Both evaluators went through each unit (card) together and decided after discussion under which sub-criterion the unit should be placed. Since this method of approach was used, there has been no check of evaluator agreement in this phase. The overlapping reported earlier between the sub-criteria in the original schedule together with the combination of sub-criteria in the reconstruction led to a number of duplicates in the new arrangement of the sub-criteria. In the analysis the units could, as described above, be of different lengths and in some cases the duplicates are not identical. The duplicate unit containing most information has been retained and the others discarded and consequently not counted in the subsequent account of frequencies. The complexity of the units can result in the same unit being classified under more than one sub-criterion. This does not mean that the unit becomes a duplicate. In the discussion of the placing of the units on the new schedule, however, our main principle has been that one unit cannot occur under the same main criterion in more than one sub-criterion. On the other hand, it is possible for different parts of the unit to satisfy the requirements of different main criteria. In the classification work of the phase described here, a number of units have been discarded completely, since they were not thought to satisfy the requirements of any sub-criterion. There can be several explanations of this. The method of working simultaneously with two evaluators and the detailed discussion of each individual unit has certainly contributed to a more restrictive view than when the evaluators worked separately with a sub-criterion. The evaluators have been better able to survey the entire schedule and this together with the thorough discussion of the problems connected with lifelong learning have made them less inclined to make subjective interpretations than in the initial period of classification. The combination of sub-criteria mentioned earlier and the re-wordings can also have contributed to certain units no longer fitting into the system.

Thus the final result of the analysis and classification is that three sets of material from Lgr 69, Lgy 70 and SIA, have been analyzed in accordance with the principles described above and classified according to the same schedule. Once the duplicates had been discarded, frequency calculations were carried out for the main and sub-criteria in the three sets of material. In order that a detailed analysis can be presented, each unit must be marked according to the new category system in each respective text. This work was done by means of the headings and page references that had been noted on the unit cards. The results of the analyses are presented in Chapter 3.

In the main we have presented the results of the analyses in a quantitative way but on several points we have completed the presentation with qualitative discussions. The authors of the analysed texts have namely considered some sections to be especially important in relation to other sections. Consequently we are aware of that a criterion can be well provided for even if it only is mentioned very occasionally in the curriculum on the assumption that the formulations have been strong. Since we have thought it urgent to be able to compare the three sets of material we have transformed Lgy 70 and the summary of SIA to Lgr 69 - lines. The different sections of the curricula vary to a considerable extent concerning the scope of the content. We have payed consideration to this fact and we work in the presentation of the results constantly with relative numbers. The exemplifyings have been worked out so that important and typical units of the criteria have been presented.

3. RESULTS OF THE ANALYSES

Background to Lgr 69, Lgy 70 and SIA

3.1 Curriculum for the basic school (Lgr 69)

1940 saw the start of a period of reform within the Swedish school system, which can be said to have initiated an era of continuous school reforms not yet completed. The period can be divided into three phases. The 1940's represented an investigatory phase, the 1950's an experimental phase and the 1960's a transitional phase. The 1970's has been a phase of following-up and evaluation. (Marklund, 1974.)

Following a thorough and comprehensive investigation, it was decided in principle as early as 1950 to introduce a nine-year compulsory school. After a long period of experimentation, a decision was taken in 1962 to the effect that a basic school following the curriculum of 1962 should be introduced successively throughout the country over a period of 10 years. A number of revisions were made to the basic school and in 1969 a new curriculum was drawn up (Lgr 69). Since the autumn term of 1972 this curriculum has been in effect in the entire basic school. At present the system is being followed-up and evaluated and SIA is one part of this work.

Lgr 69 consists of one general part and a number of supplements. The general part contains goals and guidelines, general directives for the activities of the school, timetables and syllabuses with instructions and comments.

The supplement contains supplementary directives, comments and examples to the syllabuses and to certain sections of the general directives for the activities of the school.

The work described below has only concerned the general part of the curriculum. We have analyzed goals and guidelines, general directives for the activities of the school and in addition syllabuses with directives and comments for the subjects Swedish and social studies. As an aid in reporting the results we have used the following main headings: goals and guidelines, home-school-society, cooperation, the free choice, study and vocational guidance, teaching, student welfare, evaluation of the students' scholastic results, planning, Swedish and social studies.

3.2 Curriculum for the upper secondary school (Lgy 70)

During the 1950's the Swedish school debate focussed mainly on the problems of the compulsory school, but in the 60's the voluntary post-secondary school (gymnasium) began to attract more interest. In 1960 a committee was appointed and in 1964 the Riksdag took a decision that was then developed in more detail in the 1965 curriculum for the 'gymnasium'. In brief this reform meant that the independent and collaterally organized forms of the 'gymnasium' that had existed earlier were incorporated into a single gymnasial school. The 1965 'gymnasium' is based on completion of nine years in the basic school. In 1969 it was decided to coordinate the three separate school forms, the 'gymnasium', the two-year continuation school and the vocational school into one school form called the upper secondary school. Curricula for this school are designated by the year 1970 (Lgy 70). Vocational training and general education are under the same principal and thereby the decisive step has been taken towards an integrated Swedish secondary school. (Marklund, 1974.)

Like Lgr 69, Lgy 70 consists of a general part and a supplementary part. In addition special planning supplements were published for some two-year lines and for the three and four-year lines. The general part contains goals and guidelines, general directives, timetables and syllabuses.

The work reported below has only taken up the general part. We have analyzed goals and guidelines, general directives and in addition the syllabuses for the subjects Swedish and social studies. As an aid in reporting the results we have used the following main headings: goals and guidelines, home-school-society, cooperation, teaching, planning, information about the students and evaluation of their work, study materials, student welfare, Swedish and social studies.

3.3 Committee on the internal work of the school (SIA)

The committee on the internal work of the school started work in the autumn of 1970, following a parliamentary decision to analyze thoroughly the problems arising from the working environment of the school. This decision was the result of an intensive debate on the deficiencies of the school's working environment. The directives make it clear that SIA's main task concerns measures to help students with particular problems at school.

As was indicated above, school education in Sweden was extended considerably during the 1940's, 50's and 60's. The goal has been to give all young people the same chance of a good education. The school has been given the external organization that will apply during the foreseeable future.

It is only natural that now the internal work, the working environment, has become the centre of interest. SIA reported on its findings in July 1974.

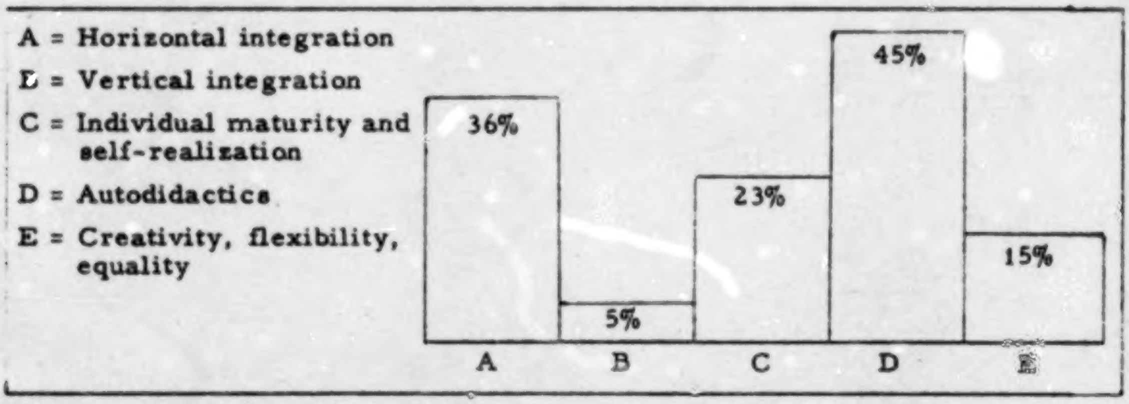
Here we can give no more than an analysis of a summary of the measures proposed by the committee.

3.4 Distribution of the extracted units over criteria and curricula sections

In order to be able to compare the extent to which the curricula and the analyzed summary of the committee´s work contain sections favourable to lifelong learning, we have converted both the original texts and the units into the same standard. The unit (standard) chosen is the average number of words included in one line of the curriculum for the basic school.

When studying the extent to which units belonging to the different main categories occur in the curricula, it must be remembered that often the same unit can be found under more than one main criterion.

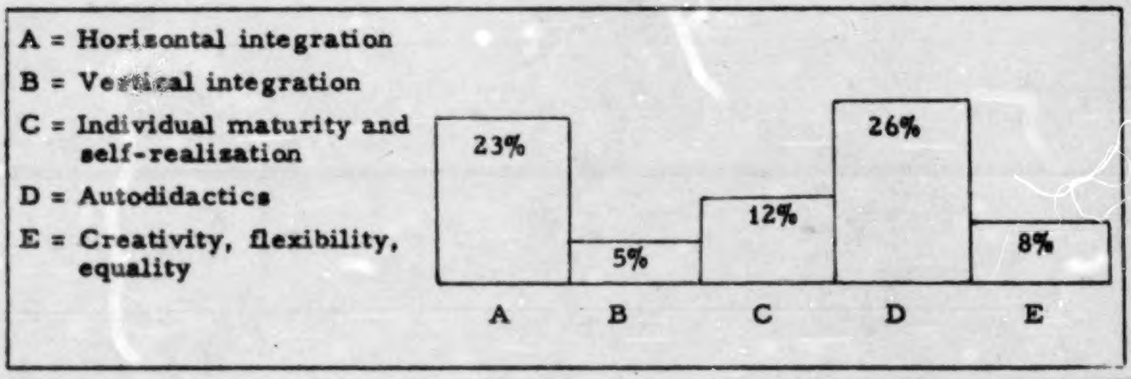
Box 1. Extent of occurrence of main criteria in curriculum for the basic school (Lgr 69)



Box 1 shows the extent to which the five main criteria are dealt with in the curriculum for the basic school.

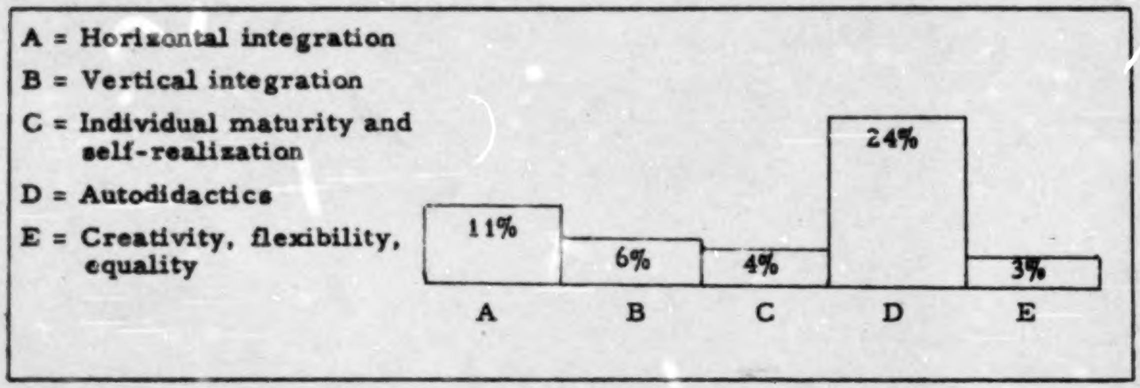
In Lgr 69 the emphasis is placed on criteria D and A. The curriculum makes good provision for individualization, development of communication skills and openness towards society in general, while less provision is made for vertical cooperation.

Box 2. Extent of occurence of main criteria in curriculum for upper secondary school (Lgy 70)



The units in the curriculum for the upper secondary school that are favourable to lifelong learning are distributed over the main criteria in roughly the same pattern as in the curriculum for the basic school.

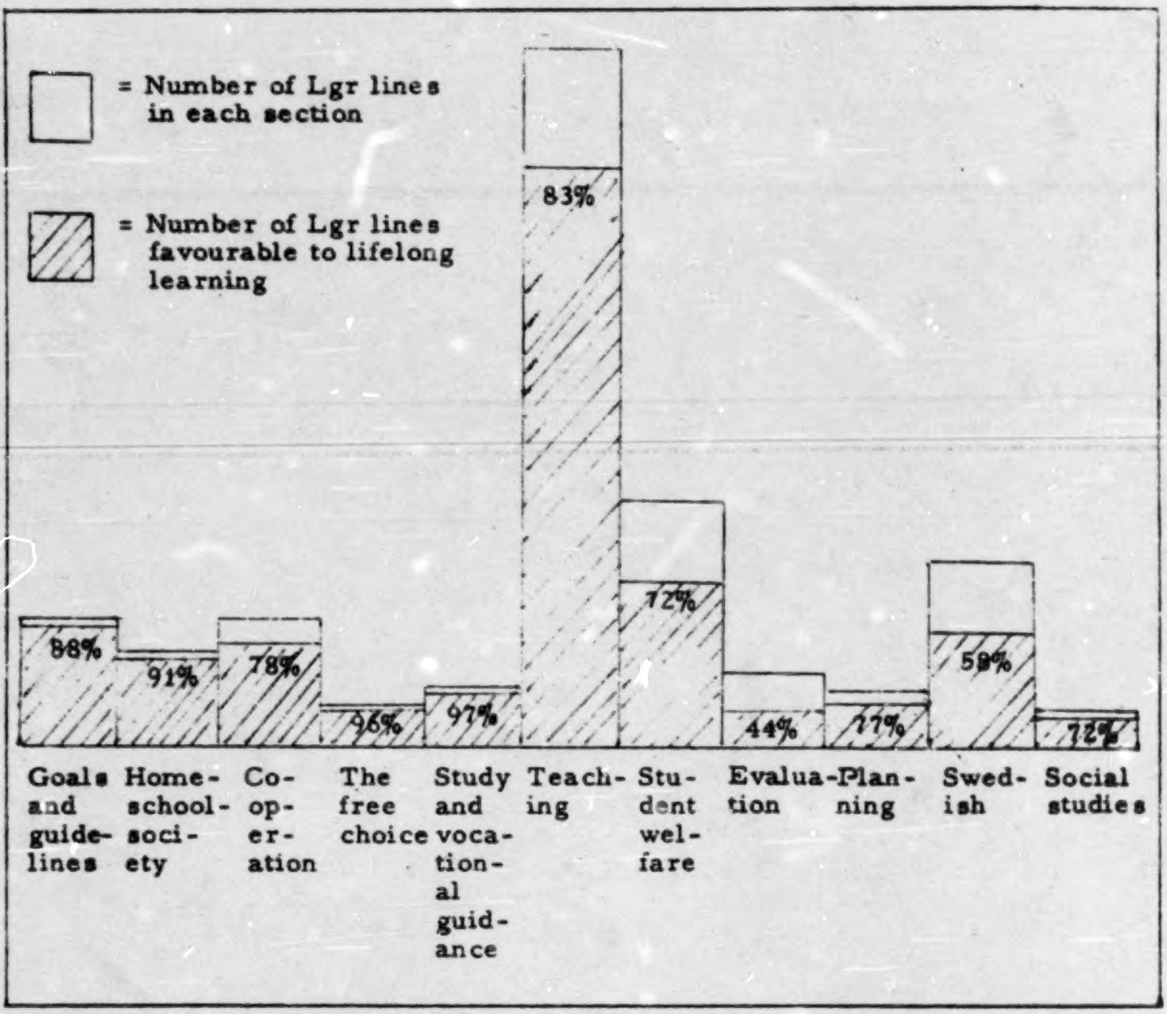
Box 3. Extent of occurence of main criteria in the summary of report on the internal work of the school (SIA)



The pattern from Lgr 69 and Lgy 70, with the main criteria D and A dominating, appears again in the analysis of the SIA summary. A great difference can be seen, however, concerning main criterion B. SIA places considerable importance on the transitions from one school level to the next throughout the school and the transition from pre-school to compulsory school.

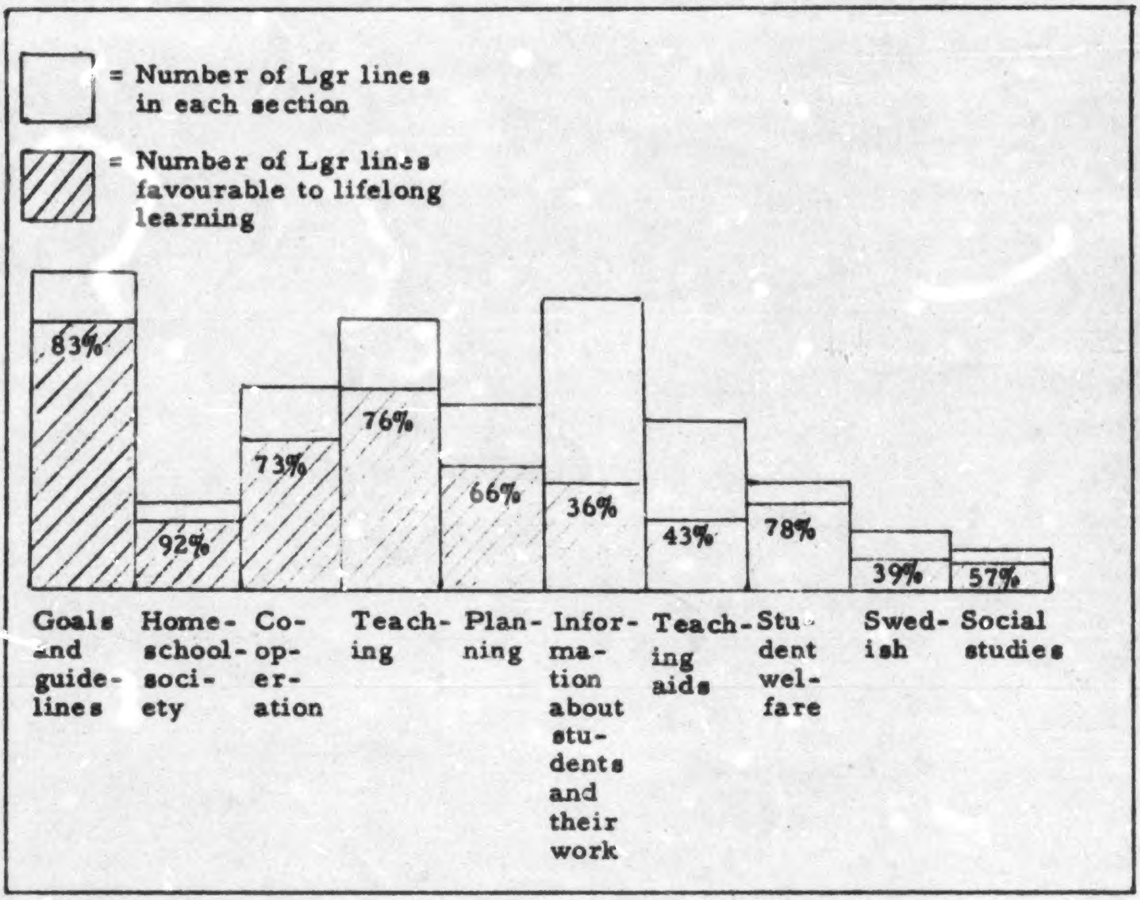
Another way of studying the occurrence of units satisfying the requirements of the main criteria can be seen in the following boxes. Here we show how great a part of the text extracts is taken up by units belonging to one of the five main criteria. Presented in this way, the units can only occur once.

Box 4. The proportion of units on lifelong learning in different sections of the curriculum for the basic school (Lgr 69)



Of the different sections in the curriculum for the basic school, the following are particularly dominated by a content that we consider favourable to lifelong learning: "Study and vocational guidance", "The free choice", "Home-school-society" and "Goals and guidelines". The section "Evaluation of students' work" has the smallest proportion of units satisfying our criteria.

Box 5. The proportion of units on lifelong learning in different sections of the curriculum for the upper secondary school (Lgy 70)



The curriculum for the upper secondary school is not divided up in exactly the same way as the curriculum for the basic school. For this reason no direct comparison can be made between the two curricula. It should be pointed out, however, that large parts of the curricula are as good as identical. The curriculum for the upper secondary school is dominated by a content that we consider favourable to lifelong learning, particularly in the sections, "Home-school-society", "Goals and guidelines" and "Student welfare". "Information about the students and their work", which corresponds to the section "Evaluation of students' work" in the curriculum for the basic school, has the smallest number of units satisfying the criteria for lifelong learning.

The summary of the report on the internal work of the school is comprised to a total of 21 % of units favourable to lifelong learning.

3.5 Horizontal integration

According to our view of lifelong learning, certain criteria are particularly critical in deciding whether the individual will become actively engaged in this process. Extensive and positive cooperation between the planned, formal learning at school and the more unplanned, informal learning in the home environment helps create in the students a more integrated view of their own situations. Experiences from the different environments of home and school can be linked and utilized. The home's positive attitude towards the school is decisive for both the initiation and the continuation of lifelong learning. If the school is felt by the student to be part of the rest of society and not simply an isolated institution of learning, the foundations of an overall view of learning are being laid. There are abundant opportunities for active cooperation between school and society if the two parties adopt an open and positive attitude.

Most people spend a large part of their lives in their professional role. Information about working life, visits to work places and active participation in working life can produce a coordination between school and work, which can help give the students a realistic view of work and greater chances of satisfying their psychological needs in working life by a well-considered and planned choice of vocation.

Further the school can give the students a more overall impression of learning by leaving as far as possible the artificial division of the school work into special subjects. Even from the point of view of pure learning psychology, it would be preferable to integrate the subjects into larger interest areas. It is important for the school to make use of various kinds of mass media in different learning situations, in order to provide the students with the tools and possibilities that are a prerequisite for lifelong learning. Active use by the school of the cultural facilities and events of the community can stimulate the students to continued activity in this area after they have left school.

Even if a curriculum has satisfied all the criteria that are favourable to lifelong learning, this is not enough. In addition the intentions of the curricula must be converted into practical school work. Teachers, administrators and authorities need concrete programmes for this final and decisive work.

The different part-criteria under A. "Horizontal integration" are presented below with the wordings used in the analysis, followed by a report on the results for Lgr 69, Lgy 70 and the summary of SIA.

Summary of criteria A. "Horizontal integration"

A 1 Integration home-school.

Parental visits to school.

Visits by school staff to students' homes.

The school's special tasks and responsibility towards the home.

The school's utilization of the students' experiences from home.

A 2 Integration school-society.

The school's cooperation with local, regional and central authorities.

The school's cooperation with voluntary associations.

The students' study visits to social institutions.

The school's orientation about society and social problems.

A 3 Integration school-working life.

Students' study visits and trial periods at different work places.

Study and vocational guidance.

Visits to the school by representatives of working life.

School teaching located to work place.

Students' attitudes towards work and production.

Students' application of school knowledge to the solution of practical problems.

A 4 Integration of school subjects.

Concentration of sections from different school subjects into larger areas of work.

Support of an understanding of the relation between different school subjects.

A 5 Integration school-mass media (daily press, weekly press, magazines, radio and television).

The school's treatment and discussion of problems brought up in the mass media.

Use of mass media in school work.

A 6 Integration school-cultural life.

Film, theatre, music, museums, library and sport.

A 7 Measures for implementation of curricula in school work.

Guidance to help teachers convert the intentions of the curricula into practical school work.

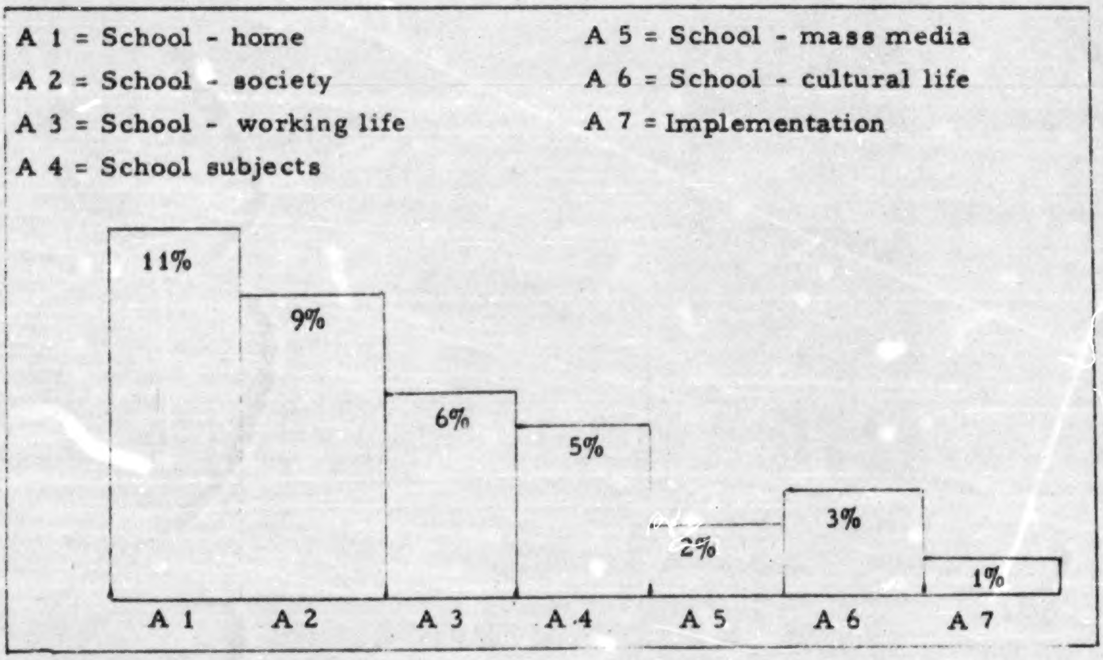
Programme of action to be taken by regional and local school authorities regarding the application of the curricula.

Receptiveness of school authorities to reactions to present syllabuses considering future revisions of syllabus.

3.5.1 Curriculum for the basic school (Lgr 69)

Box 6 shows how the number of lines in the curriculum for the basic school belonging to the main criteria A. "Horizontal integration" are distributed over the sub-criteria A 1 - A 7.

Box 6: Number of lines favourable to lifelong learning ("LLL") belonging to the main criteria A divided between sub-categories, expressed in a percentage of the total number of lines in the curriculum for the basic school (Lgr 69).



Thus the part-criteria A 1 and A 2 are well satisfied in the curriculum for the basic school. Provision has been made for the school to have many opportunities for contact with the students' homes and with the immediate community. Contacts with working life have also been given a prominent position. In these respects the curriculum favours an openness towards home - society - working life that encourages the overall view of learning described earlier and that gives the students the opportunity of working with information from varied environments at school.

The overall view of learning is further reinforced by the curriculum's recommendation that sections of different subjects should be concentrated into larger areas of work. Since lifelong learning also includes the informal opportunities for learning offered to the individual by press, radio and television, we consider it important that the school should utilize these aids and take up problems brought to the fore in the mass media. The curriculum only satisfies these requirements to a rather limited degree.

For many people the cultural activities offered by the community play an important part in satisfying their needs. In this context we can also refer back to the discussion of the quality of life presented in the introductory chapter. To some extent Lgr 69 fulfils the demands of this criterion. If the school made a greater effort in this respect, it would probably specially favour students with a less stimulating home environment, a consideration that is also one of the main themes of the philosophy of lifelong learning. The curriculum is least satisfactory regarding the criterion concerning the conversion of the written goals into practical school work. This deficiency must be considered very serious since the fulfilment of this criterion is wholly decisive for whether the intentions of the curriculum are to have any real force in the school work or simply remain a monument of beautiful thoughts.

Box 7 presents figures showing the relation between the number of lines favourable to lifelong learning ("LLL") and belonging to the criterion "Horizontal integration". The figures, which are percentages, show how large a proportion of the respective curriculum sections deals with part-criteria A 1 - A 7.

Box 7. Proportion of the respective curriculum sections, expressed in percentages, that deal with the part-criteria A 1 - A 7 (Lgr 69)

Part-criteria Section	A 1 Home	A 2 Society	A 3 Working-life	A 4 School-subjects	A 5 Mass media	A 6 Cultural life	A 7 Application	Total %
Goals and guidelines	8	18	7	4	2	7	5	51
Home-school-society	61	31	5			3		100
Cooperation	7	16	1	1		4		29
The free choice	12	6	4				4	26
Study and vocational guidance	24	11	63	2				100
Teaching	4	8	4	6	3	2		27
Student welfare	22	5	5	1		1		34
Evaluation	15	1	5					21
Planning	2	3	3	14				22
Swedish	1		1	8	2	6		18
Social studies		8	2	5	12			27

Naturally enough the part-criterion "Home-school" is well-represented in the section "Home-school-society". Examples of units that are classified under this sub-category are: "Cooperation between school and home can often take the form of meetings arranged by the school board or of parents' meetings at the school. But this is far from being sufficient since there is little chance of reaching the majority of parents in this way and the actual work of informing people is a new and difficult task" and "Parents must be told how the school is organized, what opportunities there are for choice between subjects and courses and what consequences the different choices have for continued education:. The sections on "Study and vocational guidance" and "Student welfare" have also produced a large proportion of units under the part-criterion. This shows the importance placed by the writers of the curriculum on the common responsibility resting on school and home. This applies not least to students with various kinds of difficulties at school. One of the units belonging to the section on student welfare is the following: "In order to be able to help a student with some kind of difficulty at school effectively, the class teacher must as was pointed out above primarily get some idea of the reason(s) that can lie behind the problem. This should be done through personal conversations with the student and, if it is thought suitable, with the parents too". Only one unit has been placed under the heading "Planning", which can be thought rather surprising. It would be reasonable for representatives of the home to participate to a greater extent in the planning phase of the learning process in order to get real influence over the work of the school. Like A 1 the part-criterion A 2 "Integration school - society" has naturally been concentrated to "Home - school - society".

In absolute terms the chapter "Teaching" has received a large share of units from the criterion. The curriculum recommends extensive cooperation during the actual work of learning in school. Typical examples from this chapter are "As far as possible traffic instruction should be linked to the general road safety information given by the community, which is organized centrally by the national road safety council in cooperation with road safety organizations and associations and regional and local road safety committees" and "Common work can also be introduced into the school timetable on a more irregular basis and linked with events and happenings within the school or elsewhere in society". In the introductory chapter, "Goals and guidelines" which must be considered essential, the curriculum states the value of cooperation between school and society. Such cooperation can safeguard the school from the isolation tendencies that can afflict educational institutions. An example of the units under "Goals and guidelines" can be given: "The interaction between school and society must be such that the work of the school is not only fulfilling a function corresponding to the current needs of society but also on a long-term basis becomes a positive creative force in the development of society". Since "Swedish" is a central subject, it is surprising that not a single unit marking the cooperation between school and society has emerged in the analysis under this heading.

The part-criterion dealing with the cooperation "School - working life" is weighted most heavily in the chapter "Study and vocational guidance". Here as before the curriculum clearly aims at providing for an openness that will help give the students an overall view. A typical example taken from the section "Study and vocational guidance" is "Study and vocational guidance should also provide information about society's need for different groups of trained people, thus helping students and parents who are planning training and careers to take into consideration more longrange labour market perspectives". For the same reason as in A 1 the low frequency for "Swedish" is notable.

Relatively "Integration between school subjects" has the greatest representation in the chapter called "Planning". The demand for the learning content to be arranged in natural interest areas is well satisfied in the curriculum. A good example of the way in which the curriculum fulfils the requirement of the part-criterion A 4 in the section "Teaching" is "In theme teaching the foundation is formed not of material divided into subjects, but of chosen units of material in the form in which the students meet them in real life". In "Swedish" too the curriculum has emphasized the aim of concentrating the subjects into larger work areas. One unit from the section "Swedish" is "Opportunities for combining the teaching with that in other subjects should be utilized". This example gives a good picture of the trend shown in the curriculum towards cooperation between subjects.

The cooperation "School - mass media" has the greatest proportion of units in the section "Social studies". The following example illustrates how the cooperation between school and mass media can be encouraged: "The morning assembly can be used to help arouse and deepen interest in and feeling for other peoples and cultures, for human beings' dependence on each other and for the importance of international cooperation. Concrete starting points can be taken from life, the school, the class, the home, the community, from everyday events as they are reflected in newspapers, on television and on the radio". Not a single unit from the part-criterion A 5 is to be found under the section "Planning", which is remarkable.

The part-criterion "Cooperation school-cultural life" is mainly satisfied in the sections "Goals and guidelines" and "Swedish". Two units in the part-criterion "Cooperation school-cultural life" from the section "Swedish" are: "It is important for children and young people to experience professional theatre too. Theatre performances give the teacher important tasks in preparing the students and giving them the opportunity after the performance of discussing together what they have seen and heard, if possible together with the producer and actors" and "A more long range goal should be to make the students interested in participating in the many-facetted cultural life offered to people in our society today through books, newspapers and journals, theatre, radio, film and television. It should be an important task of the school to create an open attitide towards cultural activities of various kinds and to accustom the students to following the development of the forms of expression within e.g. literature, theatre and film". In this way the curriculum provides opportunities for satisfying the cultural needs of the student and for awakening an interest that can be retained even after the completion of schooling. Within the criterion reported on above there is once more no representation in the section "Planning".

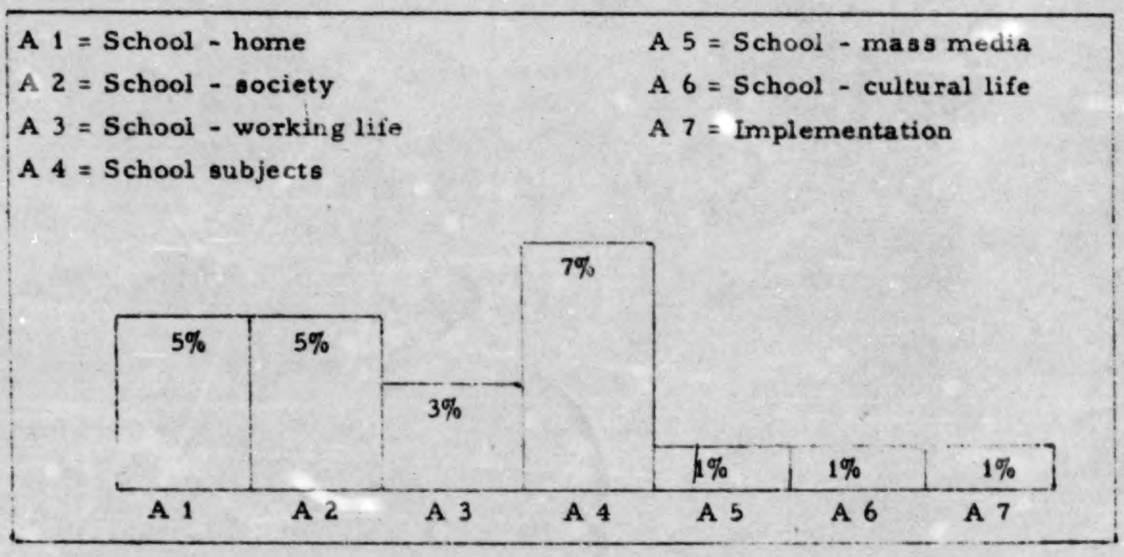
As has been mentioned earlier, "Measures for application of the curriculum in practical school work" is missing from most of the sections of the curriculum. In this respect "Goals and guidelines" is the most favoured. One example from this section is "Realization of the basic school's goals and continuous renewal of the internal work requires a high degree of cooperation both outwardly with parents, authorities and individuals in the immediate community and inwardly between the many people whose job it is to lead, implement and develop the work of the school. In these respects the school board and the school principals have an important part to play".

We can sum up by saying that Lgr 69 highly favours cooperation between school and home and between school and society. The important element of convering the verbal phrases into practical application is almost totally absent, however.

3.5.2 Curriculum for the upper secondary school (Lgy 70)

Box 8 shows how the number of lines in the curriculum for the upper secondary school belonging to the main criterion A. "Horizontal integration" is distributed over the sub-criteria A 1 - A 7.

Box 8. Number of lines favourable to lifelong learning ("LLL") belonging to the main criteria A divided between sub-categories, expressed in a percentage of the total number of lines in the curriculum for the upper secondary school (Lgy 70)


A 1 = School - home
A 2 = School - society
A 3 = School - working life
A 4 = School subjects
A 5 = School - mass media
A 6 = School - cultural life
A 7 = Implementation

As in Lgr 69, the part-criteria A 1 and A 2 are well covered by the curriculum for the upper secondary school, even if there is less emphasis on the contacts between school and home. This is reasonable considering that higher demands must be made on the students' independence in this age group. Contact with working life is of great importance for the students in the upper secondary school since many of them will go directly from completed schooling to the labour market. This applies in particular to those taking the vocational training lines. The curriculum shows an awareness of the problems involved and gives examples of measures that can help make the transition to working life smooth. If the student feels that the learning situations with which he/she is confronted at school are relevant to working life, this should stimulate a further interest in the extensive formal and informal educational opportunities made available by society.

Lgy 70 has paid particular attention to the importance of concentrating sections from different school subjects into larger areas of work. The upper secondary school works with a marked subject teacher system and there is a considerable risk of there being deep clefts between the subjects. It is essential for lifelong learning that the students should in school experience learning situations that are as close to life as possible. Working with themes that encompass several subjects increases the realism of the school work. Much more emphasis is placed in subject integration in Lgy 70 than in Lgr 69.

The cooperation school-mass media and school-cultural life is taken up very little in the curriculum. A deficiency that was also pointed out in connection with Lgr 69 is that almost nothing is done in the way of concrete directives to try to convert the intentions of the curriculum into practical school work.

Box 9 gives the relative figures for the number of LLL lines belonging to the criterion A "Horizontal integration". The figures show how large a proportion of the respective sections of the curriculum deals with the part-criteria A 1 - A 7.

Box 9. Proportion of the respective curriculum sections, expressed in percentages, that deal deal with the part-criteria A 1 - A 7 (Lgy 70)

Part-criteria / Section	A 1 Home	A 2 Society	A 3 Working-life	A 4 School-subjects	A 5 Mass media	A 6 Cultural life	A 7 Implementation	Total %
Goals and guidelines	7	10	4	2		1	1	25
Home-school-society	44	23	3		6			76
Cooperation	3	8	11	3				25
Teaching		3	4	15				22
Planning	1	1	2	37	1	2		44
Evaluation	0			0			3	3
Teaching aids			1		1	4		6
Student welfare	18	5	1					24
Swedish								
Social studies		52						52

Part-criterion A 1 has naturally been concentrated on the chapter "Home - school - society". Examples are given of the forms this cooperation can take: "The home must be made acquainted with the various functions of the school and the people responsible for them. Further the content of these functions must be clarified, together with the way in which expert help with different matters can most easily be obtained. Such information must be spread in such a way that it reaches all parents". In the unit described above the school is to take the initiative in making contact. The curriculum also stresses the importance of there being a continuous two-way communication between school and home. The chapters "Goals and guidelines" and "Student welfare" are also relatively well-represented under part-criterion A 1. The following units are taken from the sections "Goals and guidelines" and "Student welfare" respectively: "Regarding younger students, it is of the greates importance that the home and school cooperate and - when this is judged to benefit the student- try to bridge the differences in norms that can exist between home and school. In order to be able to contribute properly to the development of each student, the school needs to be aware of the student's home environment and the parents should be given the opportunity of participating in the work of the school" and "By means of conversation and other contacts the school counsellor should help clarify causal connections and clear up misunderstandings, thereby creating a favourable atmosphere for cooperation with the home". Both accentuate an aspect that is very important from the point of view of lifelong learning, namely that the student must feel that the basic attitudes of home and school are in agreement in order to obtain a harmonious learning situation. "Teaching" is among the sections lacking units under A 1, which is rather remarkable.

The part-criterion A 2 "Integration school-society" is the most dominant in the section "Social studies". A unit expressing the importance placed by the curriculum on an intimate interaction between the activities of school and community is worded as follows: "Society is changing rapidly and the school must preserve and stimulate the students' interest in participating actively in the work of society. The school cannot be isolated from the rest of society. Therefore the school work must be well-adapted not only to the development of the individual student but also to that of society". This view greatly supports the principle of lifelong learning. As expected, the part-criteria "Goals and guidelines" and "Home-school-society" are also well covered under A 2. Several sections are not represented, the most surprising being the chapter "Swedish".

The part-criteria A 3 "Integration school-working life" has most units under "Cooperation". A typical example of a unit under the section "Cooperation", which mostly deals with questions of study and vocational guidance, is the following: "Study and vocational guidance must be conducted in cooperation with those responsible for the vocational information given by the basic school and by industry and institutions outside the school, primarily the labour market department, which is responsible for the vocational guidance activities not undertaken by the school staff". From the aspect of lifelong learning, these information problems are of great significance, since a successful transition by the student from studies in the upper secondary school to higher education or professional work can contribute to creating a positive attitude to future training opportunities. In "Goals and guidelines" and "Teaching" too the curriculum has provided for cooperation between school and working life.

In the sections "Planning" and "Teaching" Lgy 70 has covered satisfactorily the demands made under part-criterion A 4, "Integration between school subjects". The curriculum of the upper secondary school accentuates much more strongly than Lgr 69 the need for subject integration. The following units have been taken from the sections "Planning" and "Teaching" respectively: "Since a lot of teachers are affected by cooperation between subjects, careful common planning is necessary, preferably resulting in a detailed programme schedule. The pitfalls that can accompany long, extensive coordination projects can usually be avoided by means of limited contacts" and "It is important that the individual teacher feels his work to be part of a greater whole and one of the many contributions to the development of the students' personalities. Cooperation over the subject boundaries encourages such a view and at the same time increases the awareness of both teachers and students of the fact that all subjects in the upper secondary school are parts that are necessary to the whole". These units point out the importance of a total view in learning and of the will to cooperate that is a prerequisite for a wider integration of subjects.

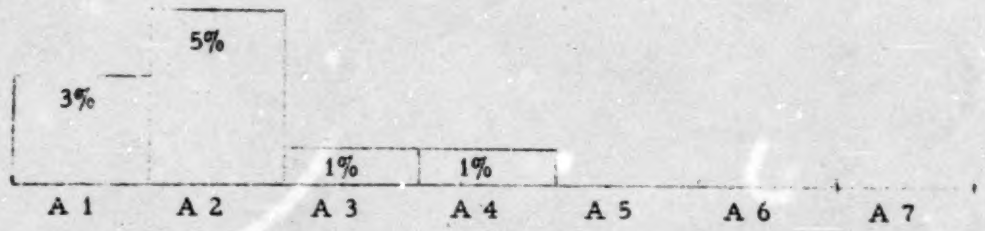
The curriculum devotes little attention to cooperation between school and mass media and between school and cultural life. The same deficiency is to be found in Lgy 70 as in Lgr 69 concerning concrete directives for the translation of the written curricula into practical school work.

3.5.3 Committee on the internal work of the school (SIA)

Box 10 shows how the lines in the summary of the report on the internal work of the school belonging to the main criterion A are distributed over the subcriteria A 1 - A 7.

Box 10. Number of lines favourable to lifelong learning ("LLL") belonging to the main criteria A divided between sub-categories, expressed in a percentage of the total number of lines in the summary of the report on the internal work of the school (SIA).

A 1 = School - home
A 2 = School - society
A 3 = School - working life
A 4 = School subjects
A 5 = School - mass media
A 6 = School - cultural life
A 7 = Implementation



The report strongly emphasizes the importance of close cooperation between the school and the local authorities. This integration between the school and the immediate community is essential if the students are to be given a positive attitude towards lifelong learning and the will to enter upon such activities. The school must not act as a state within the state, but strive continuously for openness towards the community's different organizations and above all with those providing activities for young people. A unit from the part-criterion A 2 that gives an example of cooperation between school and society is the following: "The committee is of the opinion that many of its suggestions, primarily the concept of the continuous school day and a better coordination between the school and the community's other measures for children and adolescents, would give the local authorities new and considerably better opportunities to acoomodate without friction and to the satisfaction of the employees a change which the general development of society is bringing about".

The measures proposed by the committee also cover the important work of creating contact between the formal learning that takes place in the school and the informal learning situations of the home environment. One very concrete measure for cooperation is suggested by the committee in the following unit taken from part-criterion A 1: "Every parent with a child in the basic school should have the legal right to be free from work for one day per child and school level in order to be able to go to the school for information and conversation with staff. The community should re-emburse the parents for loss of wages through the family insurance system". Such measures can help create in parents a positive attitude towards school activities. Numerous research reports have come to this result. The committee also shows an interest in new measures under part-criterion A 3: "Integration school-working life". This applies in particular to reinforcement of study and vocational guidance at the transition from school to gainful employment. "Special appointments on the county labour councils for cooperation with the school concerning students not continuation and understanding between school and working life. Integration between school subjects so that the studens experience more lifelike learning situations can be achieved by the teachers working together in teams. Another solution of the problems of subject integration, taken up under part-criterion A 3, is: "The in-service training for teachers in the basic school should aim at making it possible for the teacher to teach more subjects that those originally included in his degree". The part-criteria A 5, A 6 and A 7 have together got only one unit.

The proposals given in the committee′ report cover the school′s cooperation with home, society and working life satisfactorily. What is lacking most are concrete handbooks for various categories of school personnel. The lack of such guidelines can result in the discrepancy between the intentions of the curricula and the internal work of the school remaining. The purpose of SIA was to bridge this gap.

3.6 Vertical integration

Our view of lifelong learning as described earlier includes in the process not only formal learning, but also informal, random learning activities. One part of the individual′s lifecycle that is very important in this respect is that preceding entrance into the compulsory school. It is during these years that the child′s natural curiosity, desire to imitate and playfulness are expressed most actively. The desire to experiment and discover is important in the basic learning of language and the first concepts of number. All the random learning that has taken place prior to formal schooling must be utilized and developed. We know, for example, that when starting school children have mastered a couple of thousand words through non-formal learning. Thus the school should use working methods that make it possible for the student to continue the process of learning that has been started with such success. These factors indicate the necessity for close cooperation between the school and the pre-school activities that exist in the country. Above all we should strive for a smooth transition to formal schooling, since the student's first impression of more formalized learning can be decisive for his future. An important part of lifelong learning is to have the ability to learn from one's peers. It is necessary for the school to integrate and develop the group situation to which the children have become accustomed in free playing and pre-school activities. It is self-evident that the school should form an important part of lifelong learning. If the school is to be able to stimulate effectively the students' ability and desire to continue learning, it must be felt by the students to be a whole. This means that the knowledge, skills and attitudes acquired by the students at one school level must be adequate and suitable for use at the following level. This requires cooperation between those representing different sections of the school organization. A well-prepared transition from one school level to the next can create in the student an attitude positive to learning. Such an attitude is decisive for participation in future learning situations. So far we have dealt with the schools for children and adolescents. After this some students choose to leave school and start work instead. Others continue their formal schooling at university and college. Irrespective of the form in which the students wish to satisfy their learning needs, it is of great importance that they should be given information about the total educational opportunities offered by society. This applies to the organization, working methods and entrance requirements for various kinds of adult education. A well-developed system of cooperation between the schools for young people and the various forms of adult education can improve the chances of meeting the new educational needs that arise from developments in society. If everybode within the school could be given a positive attitude towards learning and an ability to utilize the different educational facilities available in the community, the discussion on the short-term educated and catchment activities might become less significant. By short-term educated is meant people with only a short formal education. Since learning can take place in many ways other than through organised education, the term short-term educated can be somewhat misleading. One can have satisfied one's learning needs quite satisfactorily without having many years of schooling. Our view of learning and education can perhaps lead to the discussion of short-term education and catchment activities becoming more differentiated and less discriminating regarding people with short formal education.

Summary of the criterion B. "Vertical integration"

B 1 Integration school-students' experiences prior to compulsory schooling.

Formal conferences with the staff of school and pre-school.

Opportunities for pre-school children to visit the compulsory school.

The school's interest in studying the ability of the beginners and their interest in the work of the compulsory school.

Continuity between the curriculum of the compulsory school and the pre-school.

B 2 Integration between different school levels.

Formal conferences with staff from different school levels.

The school organized as a united basic school as opposed to a parallel school system.

Continuity between the organization and study content of different school levels.

Measures in support of the continuity of the students' studies and encouraging a smooth transition between levels.

B 3 Integration school-adult education.

Coordination school-university (college).

Coordination school-different forms of adult education.

Information to students about the organization, working methods and entrance requirements for different forms of adult education.

3.6.1 Curriculum for the basic school (Lgr 69)

The number of LLL lines belonging to the main criterion B. "Vertical integration" is distributed over the sub-criteria B 1 - B 3, expressed in percentages of the total number of lines in the curriculum for the basic school, as follows:

B 1 "Integration school - pre-school experiences": 1 %
B 2 "Integration between different school levels": 3 %
B 3 "Integration school - adult education": 2 %

The integration between different levels of the basic school is the part-criterion that is covered best by the curriculum. This is not altogether surprising, since it must be easier to cooperate within the regular school system that with the institutions and organizations responsible for the learning situation before and after regular schooling. In Sweden this school form is under the auspices of a central department, the Swedish Board of Education, while those organizing other forms of education have other principals. Certain difficulties in communication make themselves felt here. Thus the curriculum makes good provision for the students to be able to transfer as smoothly as possible from one level to the next. To this end personal contacts a[illegible]ranged between representatives of different levels and measures are ta[illegible]o encourage continuity in methods and study content.

The curriculum is also relatively detailed concerning the transfer to different forms of adult education. Students are informed both of the range of educational activities offered by the community and of the working methods and entrance requirements for different educations and training courses. It is of great importance that the requirements under part-criterion B 3 are observed, since lifelong learning can be used among other things for linking compulsory education with the field of adult education. Thus if the abundant opportunities for adult education are not utilized this should be the result not of ignorance of the existence of these facilities, but of the conviction that one can satisfy one's needs through other activities and in other non-formal learning situations. The part-criterion that is least satisfied under main criterion B is the coordination between the school and the experiences of the students prior to compulsory schooling. This can partly be because there is a special supplement to the curriculum dealing with starting school and the integration of the pre-school with the primary level of the basic school. It is imperative that the school should make use of the learning that has taken place during the first, so-important phase of the life cycle. The knowledge, skills and attitudes acquired by the children prior to school age by means of natural curiosity, imitation and play lay a good foundation for continued learning in the compulsory school. Experiments are underway in Sweden to integrate the school and pre-school more effectively and in a future revision of Lgr 69 part-criterion B 1 will probably be better covered.

Box 11 presents relative figures regarding the number of LLL lines belonging to the criterion "Vertical integration". The figures, which are percentages, show how great a proportion of the respective sections of the curriculum deal with the part-criteria B 1 - B 3.

Box 11. Proportion of respective sections of curriculum dealing with the part-criteria B 1 - B 3, expressed in percentages (Lgr 69)

Part-criteria Section	B 1 Pre-school period	B 2 School levels	B 3 Adult education	Total %
Goals and guidelines		0	9	9
Home-school-society	1	3		4
Cooperation		4		4
The free choice		6		6
Study and vocational guidance	5		25	30
Teaching	1	5	0	6
Student welfare	1	1		2
Evaluation		2		2
Planning				-
Swedish		1		1
Social studies				-

As was shown above, very few units have been classified under the part-criterion B 1. The following unit has been taken from the section called "Teaching", indicating how the school should use a working method that encourages the learning acquired earlier by the children: "It is essential that the first teaching of language and mathematics should lay a solid foundation. Children are thought to have learnt on an average a couple of thousand words before they start school. This has taken place through their hearing the words while seeing, feeling and tasting and through their imitating and speaking to others. The first teaching in Sweden for the beginners should encourage the acquisition of an increased vocabulary in the same natural way".

The part-criterion B 1 is not represented under "Goals and guidelines", which is an unfortunate deficiency.

"Coordination between different school levels" is the part-criterion under which the curriculum has given most units. The relatively largest number of units comes from the chapters "The free choice" and "Teaching". The following units are examples of how the curriculum encourages cooperation between school levels, thus attempting to satisfy needs that different age-levels create within the same subject area: "Cooperation between the head teachers of the respective school levels is a prerequisite for an effective coordination of road safety education" and "Particular points and items in the teaching are not a natural part of one subject alone, but should be taken up within two or more subjects and at all levels. They should therefore be paid special attention when the teaching is being planned, both in order to arrange the necessary cooperation between the subjects in question within the same grade, and in order to provide the required continuity and suitable degree of difficulty throughout the student's entire schooling". Measures for facilitating the transition between levels within the compulsory school are of central importance for lifelong learning. If the students have been given the knowledge, skills and attitudes that make it possible to pass from one level to the next without initial difficulties, a positive attitude towards learning in general is established Somewhat surprisingly the part-criterion appears to have no unit under the section "Study and vocational guidance" and "Planning".

The part-criterion dealing with cooperation between the school and adult education, which is relatively well-represented in the curriculum, is centred entirely on the sections "Study and vocational guidance" and "Goals and guidelines". Examples providing evidence of the way in which the curriculum encourages a continuation of education within adult education are the following: "Study and vocational guidance should ensure that the students are informed about the opportunities now open to every adult to continue school education later in life" and "It is also the duty of the school to provide continuous information to the home throughout the student's schooling about the organization of the basic school and the opportunities available for continued education or on the labour market". Study and vocational guidance in the Swedish basic school is well-organized and in addition to the information the teachers can give, a specialist in the field is available for consultation.

One would possibly have expected the part-criterion to have been represented under the section "Social studies".

In summing up it can be said that the cooperation between different school levels has been covered very satisfactorily in the curriculum and that the coordination with adult education is also represented at an acceptable level. On the other hand there are deficiencies in the general part of the curriculum concerning the coordination between the school and the pre-school experiences of the children. This weakness can be explained, however, by the fact that a special supplement "Starting school" deals with these problems.

3.6.2 Curriculum for the upper secondary school (Lgy 70)

The number of LLL lines belonging to the main criterion B are distributed over the sub-criteria B 1 - B 3, expressed in percentages of the total number of lines in the curriculum for the upper secondary school, as follows:

B 1 Integration school - pre-school experiences: 0 %
B 2 Integration between different school levels: 2 %
B 3 Integration school - adult education: 3 %

The curriculum for the upper secondary school has no unit under B 1 "Integration school-students' experiences prior to compulsory schooling". This is reasonable since the upper secondary school does not work with students in this age-group. The change-over from the upper secondary school adult education that is so important from the point of view of lifelong learning has already been dealt with, as has the integration between different school levels.

In Box 12 the relative figures are given for the number of LLL lines belonging to the criterion "Vertical integration". The figures, which are percentages, show the proportion of the respective sections in the curriculum for the upper secondary school dealing with the part-criteria B 1 - B 3.

Box 12. Proportion of respective sections of curriculum dealing with the part-criteria B 1 - B 3, expressed in percentages (Lgy 70)

Part-criteria / Section	B 1 Pre-school period	B 2 School levels	B 3 Adult education	Total %
Goals and guidelines		3	1	4
Home-school-society		1	6	7
Cooperation		1	20	21
Teaching		4		4
Planning		1	1	2
Evaluation				
Teaching aids				
Student welfare				
Swedish				
Social studies				

The part-criterion B 3 is contred on the section "Cooperation". The following is one of several units from this section that mainly take up questions of study and vocational guidance: "Study and vocational guidance should give the students information about the circumstances named here and the underlying factors. They should also be told, however, about new opportunities that can be made available to them through different forms of adult education after the upper secondary school". It is remarkable that there are no units under B 2 in the section on study and vocational guidance. The integration of different school levels is taken up in the sections "Goald and guidelines" and "Teaching". It is important for the upper secondary school to add to that which the basic school has given the students in the way of communication skills. A central task here is to develop their means of expressing themselves orally and in writing", from the section "Goals and guidelines" expresses the emphasis placed by the curriculum on continuity in schooling.

3.6.3 Committee on the internal work of the school (SIA)

The number of LLL lines belonging to the main criterion B is distributed over the sub-criteria B 1 - B 3, expressed in percentages of the total number of lines in the summary of the report on the internal work of the school, as follows:

B 1 Integration school - pre-school experiences: 3 %
B 2 Integration between different school levels: 2 %
B 3 Integration school - adult education: 0 %

SIA has stressed the need to achieve the requisite continuity between pre-school and the compulsory school. The report states: "When discussing possible measures for the transition from pre-school to primary level, the committee has worked mainly from the findings of research in developmental psychology and above all the discussion around the concept of school maturity. The considerable overlapping in the development of students in the pre-school and primary level, the influence of environmental factors and the relative uselessness of the concept of school maturity are just a few of the circumstances that have been particularly heeded in the proposed measures". This quotation is taken from part-criterion B 1 and shows the committee's understanding of the importance of utilizing in the primary school the learning and methods of learning acquired by the children before starting their compulsory schooling.

The committee's report has also satisfied the requirements set up by the part-criterion B 2 "Integration between different school levels". Various measures can be taken to ease the periods, so critical from the aspect of lifelong learning, when the students pass from one school level to another within the school system. Wider cooperation between teachers at different levels can increase understanding between different categories of teachers. Sometimes when transferring to another level the student remains at the same school, or it can mean going over to a new school. The latter circumstance makes introductory periods of various length necessary. If the school system has class teachers at the one level and subject teachers at the next, greater demands are made on the ability of the students to adapt. Listening-in and conferences for teachers and students representing different levels can help bridge the strains and stresses involved. A common, overall planning across the school levels should guarantee the students more continuity in their schooling. The strains involved are often felt most by the problem students. An example of how aware the committee has been of the problems of changing school level is the following: "Changing to a new school level does not only create problems, but can also mean positive new features in the school environment. The task set the committee, however, has been to examine problems and difficulties in the school and it has therefore been natural to approach school level transition from this viewpoint".

The small number of units under the part-criterion B 3 "Integration school-adult education" is quite understandable. The directives of the committee did not include an analysis of this phase of the vertical integration, but placed the emphasis wholly on the internal work of the primary and secondary schools.

The SIA report has covered relatively well the main criterion B "Vertical integration", which was found to be the one with the least units in the analyses of the curricula.

3.7 Individual maturity - self-realization

The two main criteria "Horizontal integration" and "Vertical integration" mainly take up practical organizational aspects of what is favourable to lifelong learning. Following the division of educational needs into quantative and qualitiative ones, as we did in the introductory chapter, the two abovementioned criteria can be placed mainly on the organizational side. The main category C. "Individual maturity - self-realization" is of a different nature and involves mainly a qualitative approach. Satisfaction of qualitative educational needs implies linking up with the goals and content of learning. The words individual and self found in the name given to the criterion mark that the emphasis is centred on the individual and his needs. This naturally does not mean that the needs experienced by the individual at different stages during his life cycle can be regarded as isolated phenomena. A human being does not act in a social vacuum but in a constant interaction with his physical and social environment, the society. Such interaction must obviously colour the needs experienced by the individual. The rather rigid teacher-controlled education given in the primary and secondary schools can be an obstacle to the development of qualities such as those included in main criterion C. During recent years, however, the trend within this school form too has been to let the students participate in planning both the content and working methods of the education. Student control and problem awareness are concepts that occur increasingly frequently in the educational debate and this applies to all kinds of educational institutions. Since lifelong learning includes not only formalized education of various kinds but also informal, random learning activities, there are countless possibilities for satisfying needs brought up under criterion C, irrespective of how the organized education at institutions is conducted.

The traditional view of education and learning has over-emphasized the intellectual side. Factual and memorized knowledge within theoretical subject areas has been highly valued. Such knowledge is also easy to handle in that it is relatively easy to evaluate. Lifelong learning demands from people an all-round effort, which in addition to the cognitive part means emotional commitment, willingness to cooperate, a feeling for artistic values and purely physical achievements. These parts must not be regarded separately so that different individuals represent different parts. The qualities mentioned above should be integrated and balanced within the same individual, in order to satisfy the part-criterion "All-round personal maturity".

The content of formal education and the range of educational activities on the whole should be such that problems can be illuminated from different aspects, e. g. political and religious. This means among other things that any reappraisal of the learning content must be of a global nature and not narrowly focussed on national and/or Western values. The final goal of lifelong learning is to improve the quality of life and this is intimately associated with the system of values prevailing in the society in which one lives. An analysis with economic, political, religious and social aspects would be needed to clarify what one means by "a good life". In order to favour lifelong learning the school must work to give the students such self-confidence that after leaving school they are equipped with knowledge, skills and attitudes of such quantity and quality that they can master without anxiety the learning situations available. Every stage in a person's life makes special demands upon that person. By successively giving the students more and more responsibility during their schooling, the school can help build up their confidence. During his life a person is faced continually with problem situations. If when teaching the students the school systematically trains them in the solution of problems, the students are in a better position later in life when they are to make their own decisions. The initial phase of this process of problem solution is teaching the students to identify the problems that should be solved, making them problem-conscious. After that formal teaching or their own search for information can be used to work out a number of alternative solutions. After a critical analysis and evaluation of the possible solutions one makes the final decision. Opportunities for training the approach presented above are given by the school on the occasion of, for example, choice between further education and employment, and the choice of trade or profession after the completion of formal schooling. These problem situations have the advantage of being real, of being self-experienced. Thus the students should have the best possible motive for attempting to solve these problems.

An important demand that we must make upon the school and that is important from the lifelong learning viewpoint is that is should focus the students upon the future. The students must be informed about and made aware of the trends of development within different areas. A broad base of knowledge, skills and attitudes gives the individual greatly improved chances of meeting changes flexibly in a future society.

Summary of the criterion C. "Individual maturity - self-realization"

C 1 All-round personal maturity.

Intellectual, emotional, social, physical, aesthetic and psychomotor maturity.

Development and integration of intellectual, emotional, social, physical, aesthetic and psychomotor functions.

C 2 Understanding and renewal of different systems of values.

Analysis of individual and social systems of values.

Openness towards local, national and international problems and the educational consequences of this.

C 3 Development of self-confidence.

Opportunities for students to take greater responsibility for their own development as they progress through the school.

C 4 Development of ability to solve problems.

Development of problem-consciousness.

Development of critical thinking.

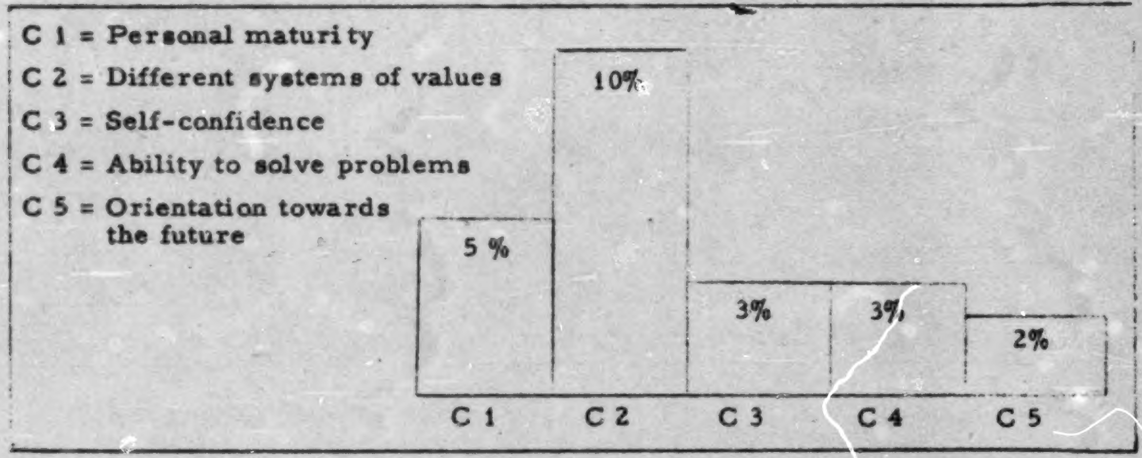
C 5 Orientation towards the future.

Openness to different patterns for self-development.

3.7.1 Curriculum for the basic school (Lgr 69)

Box 13 shows how the number of lines in the curriculum for the basic school belonging to the main criterion C. "Individual maturity - self-realization" are distributed over the sub-criteria C 1 - C 5.

Box 13. Number of lines favourable to lifelong learning ("LLL" lines) belonging to the main criterion C distributed over sub-categories, expressed as percentages of the total number of lines in the curriculum for the basic school (Lgr 69)



Lgr 69 has satisfied the requirements placed under part-criterion C 2, "Understanding and renewal of different systems of values", very well. If the intentions of the curriculum in this respect are followed, Swedish students in the basic school should have good prospects of acquainting themselves with the ways of thinking and values of other people. The curriculum warns against over narrow, national and Western views and recommends dealing with problems in accordance with more global principles. Differences between the values of individuals and groups should be taken up for discussion and the school can in this way contribute to increased understanding for and tolerance towards people with different opinions.

Part-criterion C 1 "General personal maturity" has also been taken up by the curriculum to an acceptable degree. The writers warn against having a too one-sided intellectual bias to the school work and point out that theoretical education should be integrated with manual activities. Another important element that contributes to an all-round maturity in the individual is the ability to cooperate with others. This social aspect becomes increasingly prominent in a society with efficient communications and subsequent frequent personal contacts. The emotional and æsthetic sides of the personality are also frequently stressed by the writers of the curriculum. The part-criteria that have a less prominent position, C 3, C 4 and C 5, are according to our view of lifelong learning very essential. Self-confidence is a prerequisite if the individual is to dare to participate in learning situations requiring contributions and initiative from the individual. Many so called short-term educated people with otherwise very good prospects are prevented by a lack of self-confidence in their own ability from applying to various kinds of adult education. The rapidly increasing mass of printed information and the growing supply of information via the mass media make more and more advanced demands on critical analysis and the ability to solve problems. The fast technical development also makes a focussing on the future more urgent.

Considering these latter points of view and the growing student control in many learning situations, the demands made under part-criteria C 3, C 4 and C 5 should be heeded to an even greater extent in the curriculum.

Box 14 presents relative figures concerning the number of lines favourable to lifelong learning ("LLL" lines) and belonging to criterion C. The figures, which are percentages, show how great a proportion of the respective sections of the curriculum deals with the part-criteria C 1 - C 5.

Box 14. The proportion of "LLL" lines in the respective sections of the curriculum, expressed in percentages, dealing with part-criteria C 1 - C 5 (Lgr 69)

Part-criteria / Section	C 1 Maturity	C 2 System of values	C 3 Self-confidence	C 4 Problem-solution	C 5 Future-centring	Total %
Goals and guidelines	15	20	3	1	7	45
Home-school-society	2	19	1		2	24
Cooperation	4		22	6		32
The free choice	7		15	6	11	39
Study and vocational guidance	8	6	4	10	12	40
Teaching	3	14	1	4	1	23
Student welfare	6	1	3		2	12
Evaluation	3					3
Planning	2	3				5
Swedish	5	2	0	2	3	12
Social studies		8	4	9		48

Part-criterion C 1 occurs relatively most in the section "Goals and guidelines", which is reasonable considering the content of the criterion. The following are units from the chapter "Goals and guidelines", representing the view of all-round schooling discussed earlier: "The students´ scholastic achievements depend only partly on the type and degree of their intellectual capacities. Many other factors, their physical and mental qualities, interests, home conditions etc. play an important part" and "In addition to the task of stimulating and training the student´s ability to think, there is also the task of developing his emotions and will-power, which is essential for the development of the personality". A unit taken from the section "Teaching" and underlining the comprehensive view of the student so strongly recommended by the curriculum reads as follows: "Undoubtedly the individual teacher, irrespective of the subject he teaches, bears a part of the responsibility for the student's development in cognitive, manual, emotional, aesthetic, physical and social respects. The various goal functions are, however, differently stressed in different school subjects. No subject has the sole option on any of the stated goal functions". One would possibly have expected the subject "Social studies" to be represented under this part-criterion.

The part-criterion occurring most frequently under C. "Understanding and renewal of different systems of values" is centred on the sections "Goals and guidelines", "Home-school-society" and "Teaching". This unit: "The demand for comprehensiveness arises particularly when it is a question of describing ethics, ideologies, values and controversial viewpoints in general. It then becomes important for different opinions to be balanced one against the other, so that one is not favoured before another, unless the democratically established goals and guidelines of the curriculum directly state that certain values are to be given prominence and encouraged". expresses the desire to promote the understanding of different systems of values recommended by the curriculum. The following unit is one of several touching on the international aspect of questions of values: "In the teaching one should strive to get away from one-sided national and West European perspectives. Instead one should attempt to penetrate the views and values of other cultures in order to achieve a more comprehensive understanding. This is necessary not least with regard to the under-developed countries, whose conditions are often evaluated from the viewpoint of our own values". The three sections "Cooperation", "The free choice" and "Evaluation of the students' work" lack units from part-criterion C 2.

The part-criterion C 3 "Development of self-confidence" has covered most under the section "Cooperation". A good example of the way in which the curriculum wishes to increase the self-confidence of the students by delegation of responsibility is given by the following unit: "The student's own efforts and responsibility for his own good and the good of his environment must for obvious reasons be increased gradually, in step with his own growing maturity and experience. The students should find it natural to take up all the conditions and problems they want clarified or dealt with in class discussions and the students' council". The sections "Evaluation of students' work" and "Planning" are not represented, which is somewhat surprising in the case of the planning section.

The part-criterion C 4 has been focussed on the section "Study and vocational guidance". A few examples show how the curriculum tries to live up to the demands made by the criterion. "The work in the school must appeal to the interests and needs of the students. They should be faced with problems and situations where the need to find solutions presupposes certain knowledge and skills. This is what is usually called creating motivation in educational psychology" and "The habit and ability to evaluate and take a stand actively and critically should be developed through practice and in a number of situations in school life" both involve phases of the process of problem-solution. No unit from the C 4 criterion has been classified under the sections "Home-school-society". "Student welfare", "Evaluation of the students´work" and "Planning".

The part-criterion C 5 "Orientation towards the future" is represented mainly in the sections "The free choice" and "Study and vocational guidance". A typical unit taken from the section "Goals and guidelines" is the following: "The school work must be well-adapted not only to the individual student but also to the development of society. It must be focussed on the future and prepare the students so that they can meet changed conditions and new demands". These changed conditions and new demands can naturally also mean that new needs must be met with a different selection of learning opportunities, both formal and informal, with e.g. the field of adult education. The part-criterion C 5 has no units in the sections "Cooperation", "Evaluation of students´ work", "Planning" and "Social studies".

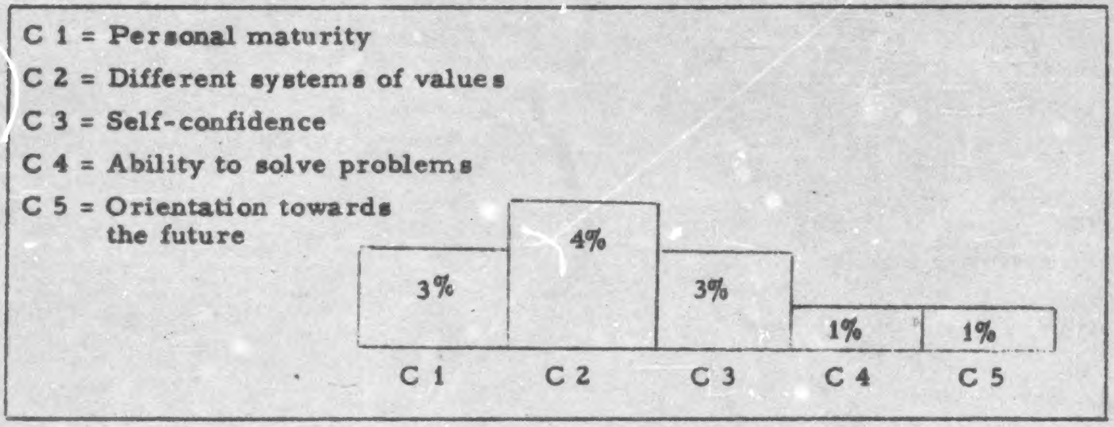
Thus the curriculum highly favours understanding different systems of values, and the global aspect is particularly well covered. An all-round personal maturity has also been strongly recommended by the authors of the curriculum. More should have been done, on the other hand, to support the development of the students´ self-confidence, development of their ability to solve problems and orientation towards the future.

The part-criteria C 3 - C 5 are essential to lifelong learning. Commitment on the part of the individual requires self-confidence if he is to dare to enter learning situations, tools to solve the problems and tools so constructed that new, future situations can be mastered. The above-mentioned qualities are particularly important in a time when the learning is tending to become more and more student controlled.

3.7.2 Curriculum for the upper secondary school (Lgy 70)

Box 15 shows how the number of lines in the curriculum for the upper secondary school belonging to the main criterion C are distributed over the sub-criteria C 1 - C 5.

Box 15. Number of lines favourable to lifelong learning ("LLL" lines) belonging to the main criterion C distributed over sub-categories, expressed as percentages of the total number of lines in the curriculum for the upper secondary school (Lgy 70)



The part-criteria C 2 "Understanding and renewal of different systems of values" and C 1 "All-round personal maturity" are relatively well-represented in Lgy 70. C 3 "Development of self-confidence" has also been mentioned. A considerable effort is made in the curriculum for the upper secondary school to encourage the creation of opportunities for the students to make more responsibility for their own development. The part-criteria C 4 "Development of ability to solve problems" and C 5 "Orientation towards the future" are covered considerably less well.

Box 16 presents the relative figures for "LLL" lines belonging to criterion C. The figures are percentages, showing how great a proportion of the respective sections of the curriculum for the upper secondary school deal with the part-criteria C 1 - C 5.

Box 16. The proportion of "LLL" lines in the respective sections of the curriculum, expressed in percentages, dealing with part-criteria C 1 - C 5 (Lgy 70)

Part-criteria / Section	C 1 Maturity	C 2 System of values	C 3 Self-confidence	C 4 Problem-solution	C 5 Future-centring	Total %
Goals and guidelines	7	16	9	2	4	36
Home-school-society						
Cooperation			4			4
Teaching	4	3	4		-	11
Planning		5		1		6
Evaluation	1			1		2
Teaching aids				1		1
Student welfare	18					18
Swedish	10					10
Social studies						14

"All-round personal maturity" has the greatest relative number of units in "Student welfare". The unit "The goal of promoting the all-round development of the students, including giving them knowledge and practicing their skills is equally applicable in the upper secondary school and in the basic school" has been taken from the section "Goals and guidelines".

The part-criterion C 2 is centred on "Goals and guidelines". An example of units under C 2 is the following: "Facts and evaluations should be presented as comprehensively as possible. In borderline cases, when there is some doubt as to whether one is faced by a fact or an evaluation, the discussion should be kept open".

The part-criterion C 3 has the majority of its units under "Goals and guidelines". The following unit expresses the interest of the curriculum in strengthening the students' self-confidence: "The development of will-power in the students is a matter of central interest to the school. Thus the school work should be planned to give the students the possibility of building up their self-confidence, powers of initiative, perseverance in work and ability to cooperate". Such self-confidence is a prerequisite if the students are to become involved in lifelong learning.

As has been mentioned earlier, Lgy 70 has only to a small extent taken up development of the ability to solve problems and orientation towards the future.

3.7.3 Committee on the internal work of the school (SIA)

The mainly qualitative educational goals coming under the part-criteria in the main criterion C have not been taken up at all in the SIA report, with the exception of C 2, which is well-represented. Approximately 4 % of the summary of the report is concerned with this part-criterion. The committee has mainly taken up points of wiew on the position of remedial teaching in the school system and awareness of local problems and their educational consequences. Thus here too it is mostly a question of organizational aspects and not analyses of educational needs linked with the goals and content of learning. A good picture of both the view taken of remedial education and the local connections is given in the following unit: "An important motive for organizing the school staff in teams and the students in groups instead of the one-teacher system and classes is the opportunity thereby created of integrating parts of the remedial teaching within the frame of the group, avoiding 'expulsion mechanisms'".

3.8 Autodidactics - development of readiness for new learning and relearning

We consider the concept of autodidactics to be the most central factor in the conversion of the idea of lifelong learning into practical skills. Autodidactics encompasses knowledge, skills and attitudes that are prerequisites for lifelong learning among school principals, teachers and students. Here we will take up how school principals and teachers should plan, evaluate the teaching in order to create good prospects for the development in the students of the practical skills that will make it possible for them to find the information they are looking for and effectively learn what they wish to know.

We have said earlier that we consider learning to be one of the answers to an experienced need which has in its turn arisen through the individual being faced with problem situations and that the learning effect is dependent on the extent to which the needs are satisfied through studies. When a person has become aware of the problem and found that he is not sufficiently prepared to be able to solve it, he may start looking around for possible ways of acquiring more experience. This new experience can be obtained in many different ways. He can, for example, ask friends, read up on the subject or go through a course of training. At best the learning will result in a state of readiness to meet the problem situation in question in a satisfactory way.

As far as autodidactics is concerned, the problem for the student is to obtain in the best way possible good opportunities for continuous learning - individually and in cooperation with others. For school principals and teachers, the problem situation is how to create in the best way possible good opportunities for the students to acquire learning skills and how to achieve a positive attitude towards learning. When we speak of lifelong learning here, it should be stressed that these demands on school principals, teachers and students do not only apply to the elementary and secondary schools. The demands of autodidactics on teaching and studies can be generalized to apply to all training leaders, teachers and students. In all education it is important for both teachers and students to concentrate primarily on giving the student sufficient knowledge and study technique to provide a platform for further learning. Even if there are a number of general rules for study technique, the application of these rules in different subject areas can imply special modifications. The general rules of study technique can also be applied in different ways by different people of different ages and with different backgrounds. This should be kept in mind when, as in this case, the demands of autodidactics on the staff and students of the school are being studied.

School principals and teachers should create the organizational conditions for individualized teaching and carry out the school work with consideration of the students' maturity, previous knowledge, interests and other factors. This also makes it necessary to accept individual variations in the ability to learn and ways of learning.

The school work should be arranged in such a way that the students are given the opportunity of participating in the planning, implementation and evaluation on the basis of their own educational needs. The school should give the students the chance to choose the course of their studies freely and to choose their methods of work, individually and in groups. In this the students' self-learning should be supported, which can imply supporting initiatives taken by the students themselves in the school work and permitting them to learn at their own speed.

It is essential that the development of the students' study technique and communication skills is kept in the foreground throughout their school work, irrespective of the subject. This can naturally mean that different forms of study technique and communication skill can predominate in different subjects. In general the teaching should be organized so that the students are given the chance to practice such basic activities as observing, listening, speaking, reading, writing, planning, evaluating, experimenting and discovering. Studies should be arranged so that the students are given practice in making use of various learning aids themselves and in producing improvised study material themselves. They should be given practice in finding their way around libraries and museums. The habit of utilizing existing cultural factilities should be supported comprehensively. Reading technique and the ability to interpret e.g. tables, pictures and graphic presentations should be developed throughout the school. The individual student should be given the opportunity to develop his own study technique, taking as a staring point the experience and rules that the psychology of learning and general study technique can provide.

The development of the students' ability to learn mutually from each other in groups requires that the school work provides chances for the students to work in groups of varying size. It should also be possible to vary the age and experience of the group members, which makes it necessary to work across the grades. Further the students must receive support both for their internal cooperation and for cooperation with teachers and other school staff.

The goals of lifelong learning do not concern only knowledge and skills. The development of the individual's personality is a predominant goal. Therefore it is important for both teachers and students to be able to apply the ideas underlying the concept "active listening". This means not only listening to what the members of groups say concretely, but also trying to understand the feelings behind the opinions being advanced. A student often feels that he is dependent on his teacher and consequently prevented from expressing critical or personal opinions. This can result in the students saying one thing but secretly meaning something else. If one wants other people to express their real feelings and opinions, one must also respect the feelings and opinions that others have. As long as the contacts between students and teacher imply a threat, no meaningful contact can be established.

What has been said here is closely related to another demand that should be fulfilled if the school is to favour the development of the students' ability and will to learn individually and mutually from each other. This is that the school should develop the students' interest in acquiring a good capacity for autodidactics.

In order to create an interest in autodidactics and its practical skills, school principals and teachers should strive for the development of a favourable learning climate in the school. A positive attitude towards learning should be encouraged by the creation of a relaxed, informal relationship between the students themselves and between the teachers and students. It should be possible to act openly and express feelings honestly. Competition between individuals and groups should be avoided. In the teaching situation one should avoid being critical, evaluating and moralizing and instead create a spirit of equality and freedom, frankness and understanding. Students approached in this way can more easily understand their own situation and express what they stand for. Defensive attitudes can be brought down and the students' own experiences utilized more constructively.

Regardning the evaluation of study results, it is essential for lifelong learning that school principals and teachers accept the students' self-evaluation as an integrated part of the school's system of evaluation. For this reason opportunities should be made for the students to practice self-evaluation, thereby developing understanding of its advantages and disadvantages. But evaluation by others as a complement to self-evaluation should also be supported. Formally graded evaluation should be avoided in favour of a more differentiated description. The evaluation of learning results should be done in relation to the student's own ability and be related to individual goals instead of relative ones.

In this context the experiences gained from research into levels of aspiration in connection with studies appear to hold useful information for school principals and teachers. The student's feeling of success is linked with the goal he has set up for himself. This goal, however, is not separate from how the student places himself in the group he considers suitable for him. In this way knowledge of the achievements of the other members of the group influences the goals that a student sets up for himself. It also influences the experience of success or failure resulting from the study results. A self-evaluation related to individual goals will thus often also involve consideration of the results of fellow students.

It is also favourable to the study motivation of the students if the curriculum can be adapted to local requirements and if the school administration supports alternative study content and ways of arranging the studies. This requires that the curriculum, despite its general validity for the entire country, should provide generous allowances for regional and local adaptations. In addition there should be room within the framework of the curricula for individual initiatives taken by teachers and students.

Summary of criterion D "Autodidactic - development of readiness for new learning and relearning"

D 1:1 Individualization of the teaching with regard to the students' maturity, interests and other factors.

Organizational arrangements to provide the external conditions for individualized teaching.

Acceptance of individual differences in the ability to learn and ways of learning.

Relation between the learning needs of the students and the study content.

D 1:2 Opportunities for participating in the planning, implementation and evaluation of the learning, starting from the educational needs of oneself and, when working in a group, of the other group members.

Chances for the students to make plain their own learning needs.

D 1:3 Support and opportunities for self-learning.

Support for the students' own activities in school work.

Opportunities for the students to choose freely the direction of their studies.

Opportunities for the students to choose freely the content of their studies and working methods individually and in groups.

Support for the students' own initiatives in school work.

D 1:4 Development of study technique and communication skill.

Opportunities for practice in observing, listening, speaking, writing, planning, evaluating, experimenting and discovering.

Development of learning skills.

Opportunities for the students to use alternative learning skills.

Use by the teachers of various teaching methods and study materials (educational aids).

Support for the students' own use of different learning aids.

Support for the students' production of improvised study material.

Support for the students' own search for information.

D 2 Mutual learning from one another in a group (interlearning).

Opportunities for the student to work in groups of varying size.

Possibility of working with the same assignment at different levels within the frame of the group (class).

Support for cooperation between students in the school work and between students and other school staff.

D 3 Evaluation.

Acceptance of self-evaluation as an integrated part of the school's evaluation system.

Development of the students' willingness to expose themselves to evaluation by others of their achievements.

Support for evaluation by others as a complement to self-evaluation.

Integration of the evaluation into the learning and development process.

Avoidance of formally graded evaluation in favour of descriptive evaluation.

Evaluation of the learning results in relation to the student's own ability; individually goal-related evaluation instead of relative.

D 4 Development of a favourable learning climate.

Encouragement of a positive attitude towards learning.

Avoidance of competition between individuals and groups.

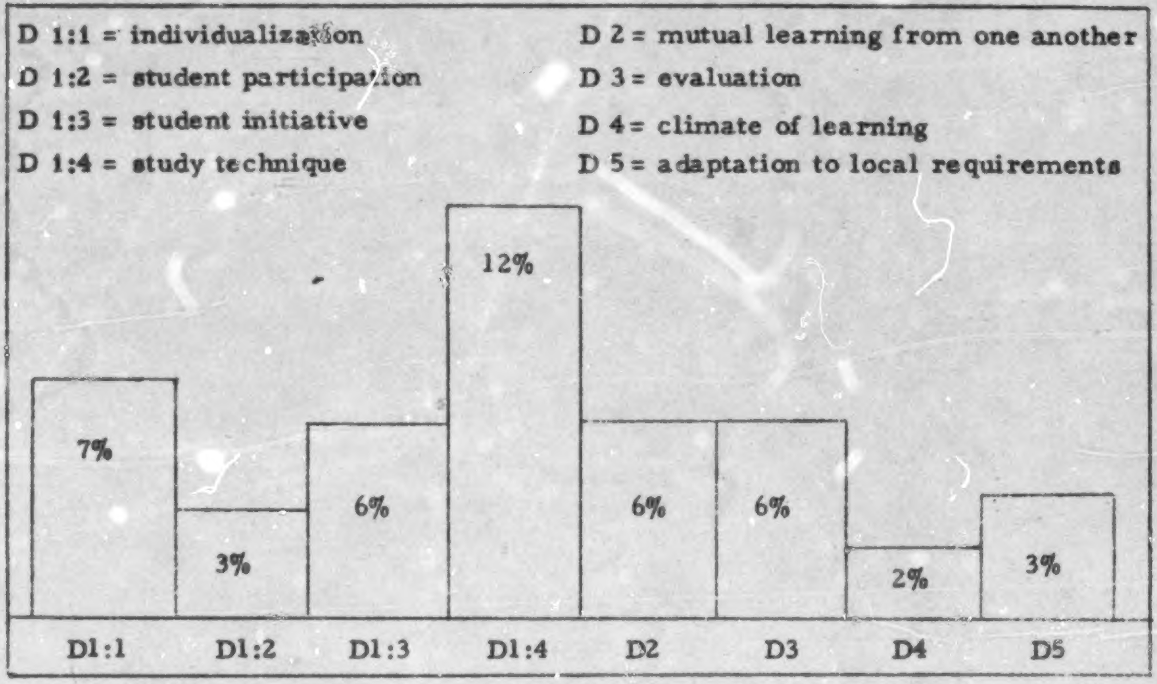
D 5 Adaptation of the curriculum to local requirements.

Support of alternative study content and alternative forms for the organization of studies.

3.8.1 Curriculum for the basic school (Lgr 69)

Box 17 shows how the number of lines in the curriculum for the basic school belonging to main criterion D. "Autodidactics", are distributed over the subcategories D 1:1 - D 1:4 och D 2 - D 5.

Box 17. Number of lines favourable to lifelong learning ("LLL" lines) belonging to the main criterion D distributed over sub-categories, expressed as percentages of the total number of lines in the curriculum for the basic school (Lgr 69)



In our opinion autodidactics has a satisfactory coverage in the curriculum of the basic school. This applies in particular to everything underlying the concept of self-learning, criterion D 1. Within the limits of this concept it is the development of study technique and communication skill D 1:4, that dominates the curriculum's presentation, even if the problems of individualization are also discussed quite exhaustively.

The Swedish school works with relative grades, expressed on a five-figure scale. This system of grading is in direct conflict with the ideas on evaluation contained in the principles of lifelong learning. It is remarkable that the curriculum nevertheless contains so much in this respect that must be considered favourable to lifelong learning.

The part-criteria within the concept of autodidactics that are least provided for in the corriculum are its adaptation to local conditions, measures for achieving a favourable learning climate and support for the students' own participation in the school work.

Box 18 presents the relative figures showing the number of "LLL" lines belonging to criterion D. The figures, which are percentages, show how great a proportion of the respective sections of the curriculum deal with the part-criteria D 1:1 - D 1:4 och D 2 - D 5.

Box 18. The proportion of "LLL" lines of the respective sections of the curriculum, expressed in percentages, dealing with the part-criteria within the main criterion D (Lgr 69)

part-criteria / Section	D1:1 Individualization	D1:2 Student participation	D1:3 Student initiatives	D1:4 Study technique	D2 Learning from each other	D3 Evaluation	D4 Learning climate	D5 Local requirements	Total %
Goals and guidelines	11	7	11	5	4	2	5	2	47
Home-school-society									
Cooperation	5	10			9	1	11		36
The free choice	6		52		6	5	3	4	76
Study and vocational orientation	2		9	5		5			21
Teaching	11	3	8	18	11	5	1	4	61
Student welfare	2			1	1	14	3		21
Evaluation of students' work						22	2		24
Planning	11	13	6	14	3			10	57
Swedish	8		3	23	1	1	1		37
Social studies	5	7	13	20	6		2	11	64

Relatively speaking, considering the length of the sections, D 1:1 "Individualization of the teaching" occurs most within the sections. "Goals and guidelines", "Teaching" and "Planning".

The following fundamental view, which is very important for individualization, is to be found in the section "Goals and guidelines": "In a school for everybode, where the greatest possible consideration is to be paid to the individual student's interests and ability, the demands made on achievements must vary within one and the same class". "By various kinds of arrangements the basic school tries to provide the external conditions for an individualization of the teaching." "The teaching and study material can therefore be adapted comparatively easily to the capacity and aims of the individual student, to the temperament and interests of the teacher and to the new demands that changes in the structure of society can make."

In the section of the curriculum dealing with the implementation of the teaching, the individualization of the school work is taken up in various contexts, such as working methods, dividing up the material, study material and remedial teaching. A few examples follow:

"There is no form of teaching or working method that can be described as the most advantageous for all teachers, students, subjects and school levels. The form or method used should be that which is most suitable considering the material and the skills and results one is trying to achieve." The curriculum recommends dividing the material into main items and continues: "A main item can for some students be given a practical and concrete content, while for others it can be made the object of more theoretical studies. The main item can be dealt with in more or less detail. Nor is it necessary for all students to penetrate every item in the course. It should always be ensured, however, that the student has a command of that which is essential in the context and which is within the limitations of his capacity". "Remedial teaching is an important element in the school's efforts to create a working method and a course of study adapted to each students' capacity and needs. Remedial teaching is a natural measure to help the students who, owing to special difficulties in their school work, need complementary or supportive teaching parallel to the rest of the teaching in their ordinary class, and for the students who, for physical or mental reasons, display such deviations in development and maturity that the necessary measures can only be satisfactorily applied by teaching in a remedial class." D 1:2 "Student participation in the school work" is given a relatively large amount of space in the two sections of the curriculum dealing with "Cooperation" and "Planning". The section of the curriculum dealing with "Student welfare" is one of the longest, which makes it even more surprising that we have there found only one unit dealing with student participation. As far as student welfare is concerned, the students appear to be largely the object of the school's attention and very little is said here about the student feeling that he is equally responsible, a subject.

Some examples strongly supporting the students' participation in the school work follow. They have been taken from the sections of the curriculum on "Cooperation" and "Teaching". "The individual should, irrespective of age and assignment feel himself to be co-responsible, a subject. To be merely the object of the influence, in a social or educational process, is not compatible with the demand for cooperation on equal terms." "The students should also be given increasing opportunities of participating in planning the content of the teaching and the working methods and in the evaluation of the results."

D 1:3 "Support for the students' own activities and initiative" occurs in the curriculum mainly within the section "The free choice". It is firmly stated here that the principle of the free choice is one of the cornerstones of the basic school. The content of almost the whole of this section must be considered favourable to the development of the students' readiness for new learning and relearning. But also in the sections, "Goals and guidelines", "Study and vocational guidance", "Teaching" and "Social studies", quite a lot is said that favours the activity and initiative of the students. No corresponding support for the students' own activities and initiative is to be found, however, in the sections of the curriculum headed, "Student welfare" and "Evaluation of the students' work".

The support for the students' independent activities are expressed in the following way in the curriculum: "In its widest sense the principle of free choice must be applied from the first to the last grades of the school. In daily work each student should be gradually trained to choose freely within certain limits extra assignments that supplement the given basic course that everyone works on". "The choice of optional subjects and courses may be made even if the choice conflicts with the school's opinion of the student's ability. This means that there are no barriers to admission to the various optional alternatives." "A change of course can necessitate special measures to help the student, if it is in reality to be possible to change from one course to another. In such cases the school should arrange for supplementary teaching, so called supportive teaching." "The students placed in remedial classes should as far as possible be offered a free choice, for example by being given the opportunity of entering other classes' optional groups."

It should be observed, however, that the curriculum also contains the following sentences, which are not wholly in harmony with the quotations given above. "The free choice cannot be wholly free from organizational restrictions, nor as a rule from restrictions arising from the individual's own aptitude." "The possibilities of establishing groups and thereby meeting the wishes of the students concerning optional subjects, courses and activities are however dependent on the number of students applying for the different groups."

D 1:4 "Study technique and communication skill" is taken up in a way favourable to lifelong learning in the sections of the curriculum on "Swedish", "Social studies", Teaching" and "Planning". It was naturally to be expected that "Study technique and communication skill" should be well represented with the subject Swedish. We were more surprised that these skills also occupy a relatively prominent place within the subject "Social studies". Expressed in absolute figures these skills occur most in the section "Teaching". It should be noted that the part-criterion "Study technique and communication skill" also includes the requirements that the teachers should use different teaching methods and study materials, that the students themselves should be given the opportunity of applying different learning skills, using different study materials, producing study materials and searching for desired information.

We consider that the curriculum provides good coverage of the part-criterion "Study technique and communication skill". The following examples can be given: "One important element in the school's effort to mediate a more all-round work technique is that the students be given practice and guidance in study techniques. This should concern both general points of view and the more special advice and instructions called for by the nature of the different subjects, the age and capacity of the students etc.".

"Listening, reading and observing with thought and imagination are forms of activity practised by the student in the great majority of the school's teaching situations. Due to the advance of the mass media, they have acquired even greater importance for the individual in our day and should therefore be allowed to figure to such an extent in the teaching that the students are given good habits of listening and observing". "The students are to train their ability to obtain information themselves from sources of knowledge suitable to the age level. Facts and terminology should then be applied on different kinds of material for social communication, such as forms, communications from authorities, newspapers, radio, television and other organs for forming

opinions. This training should also aim at increasing the ability to listen and read with criticism and judgement and to place things in their context." "Books, newspapers and journals, brochures and other written sources can help make the teaching more concrete. The same applies to authentic objects, models, pictures, wall-charts, maps, tables, diagrams, films and tapes, television and radio programmes etc. An even greater degree of concretion can be obtained through activities such as student experiments, demonstrations, study visits, excursions, interviews, talks from visiting experts and other guests at the school." "Production by the students of study material in the form of text, pictures and tapes for use in different learning contexts should be stimulated and supported by the school."
Although D 2 "Mutual learning from one another" is represented considerably less than self-learning, it is nevertheless taken up in the curriculum.

The curriculum sometimes appears a trifle inconsistent. In the section on cooperation a statement is made that is very positive for lifelong learning. "In its efforts to vary and deepen the forms of democratic co-existence, the school must work for cooperation and joint work to take place in groups of varying size and composition and for cooperation groups to be formed irrespective of class and grade restrictions." But in the section dealing with "Teaching" it is stated: "Teaching in groups smaller than a class can with advantage be carried out in various ways. The students can be divided into groups on the basis of e.g. rate of work, ability or results".

The section on "Teaching" also contains, however, support for mutual learning, as in e.g. "Cooperation implies that the activity is given a social slant. ‹ such cooperation in varying learning situations the students get the opportunity of paying consideration to and helping each other, of planning a piece of work in consultation with others, of producing something together, of giving and taking together with others, of leading others and in their turn being led, of experiencing the pleasure of work together."

The Swedish school's main principle concerning D 3 "Evaluation" is relative grading, a form of grading which we consider unfavourable to lifelong learning. The curriculum describes the grades in the following way: "Grades are usually looked upon primarily as a gauge of how the student has succeeded in relation to his fellow-students in achieving the goals set up in different subjects and courses. Thus as gauges of knowledge and skills they are not absolute but relative. They state achievement in relation to corresponding achievements by all the students in the country, in the same type of course".

Evaluation in the sense in which it is used within the concept of lifelong learning is nevertheless represented relatively speaking most in the section of the curriculum dealing with "Evaluation of students' work". Within the section called "Student welfare" we have also found relatively many units dealing with evaluation in a way favourable to lifelong learning. Considering the total number of units, however, the majority are to be found in the section of the curriculum dealing with the actual teaching.

Taking as our starting point the seven points that define evaluation within the frame of the concept of lifelong learning, we can establish that the following four are badly covered:

(1) "Acceptance of self-evaluation as an integrated part of the school's system of evaluation".

(2) "Opportunities for practice in self-evaluation and development of understanding for its advantages and disadvantages".

(3) "Avoidance of formally graded evaluation in favour of descriptive evaluation".

(4) "Evaluation of learning results in relation to the student's own ability; individual goal-related evaluation instead of relative".

To a certain extent it can be said that "Support for evaluation by others as a complement to self-evaluation" is provided for in the curriculum. "Development of the students' willingness to expose themselves to evaluation by others of their achievements" is a point that appears to be well provided for in the Swedish school, even though nothing is said about active development of this willingness.

The point that is above all covered in the curriculum is "Integration of evaluation into the learning and development process". This integration, which is favourable to lifelong learning, involves both evaluation of the teaching (System evaluation) and a certain measure of individual goal-related evaluation. The following examples of this can be given: "The primary purpose of the evaluation is to clarify whether the teaching method and study materials have been well chosen and the goal realistic. It is not necessarily a step in the grading of the students". "Since the ultimate purpose of the teaching in the basic school is the optimum development of the individual student's personality, special interest must be devoted to evaluation related to the individual." "Evaluation can also be regarded as a form of activity. The teacher should let the students try to check and evaluate their achievements in relation to their own ability." "The so called diagnostic tests have a special part to play. They are intended to guide the work of the teacher by mapping in the greatest possible detail the knowledge and skills of the individual student or class on a particular item in a subject."

D 4 "Development of a favourable learning climate" implies encouragement of a positive attitude towards learning and avoidance of competition between individuals and groups. The avoidance of competition between individuals and groups is not dealt with explicitly in the curriculum. On the other hand demands are made for security and pleasure in the school environment and for mutual confidence between teachers and students. Taken totally this criterion is dealt with to a lesser extent than any other in the curriculum.

Relatively speaking the criterion is dealt with most in the section of the curriculum on "Cooperation", but we found most units providing for the development of a favourable climate of learning in the section on "Teaching". Examples that can be given of units favourable to the criterion are the following: "The environment that the school creates for the students and the security and enjoyment they experience are of the greatest importance". "It is essential that all students should be given a positive basic attitude towards their studies and that everyone should contribute actively and with interest to the work, doing their best within the limits of their aptitude and capacity." "The students must feel at home in their school, be met with trust and appreciation and given their share of the responsibility for the common affairs of the class and the entire school."

D 5 "Adaptation of the curriculum to local requirements" has relatively little coverage in Lgr 69. Despite the fact that the curriculum is valid for the entire country, it gives the school authorities, teachers, and students great freedom. It seems to us that this freedom is not always realized by the school staff or by those participating in the Swedish school debate in the mass media. Relatively speaking, the local adaptation of the curriculum is taken up primarily within the subject "Social studies", but it also appears under "Planning". The section of the curriculum on "Teaching", however, contains the greatest number of units that we have considered favourable to this particular criterion for lifelong learning. The following units give examples of the view taken in the curriculum of local adaptation of the school work.

"The need for well thought out, concrete study plans, both of a general nature and with local associations, is connected with the construction of the syllabuses and with the content and trend of the directives. Within the limits stated there, there is room for considerable freedom in the work. This is one of the prerequisites for achieving good results in the teaching and for continued development of the school work. The freedom is linked, however, with the obligation to arrange and conduct the teaching according to a plan not only for single lessons but also on a more long range basis." "Local syllabuses should be revised when necessary, wherewith the recently mentioned directives can serve as guidelines. In the subjects in which studies of the immediate environment are central or form an essential element in the teaching, e.g. local geography and history, natural science, biology and social studies, the syllabuses must necessarily be linked to local circumstances."

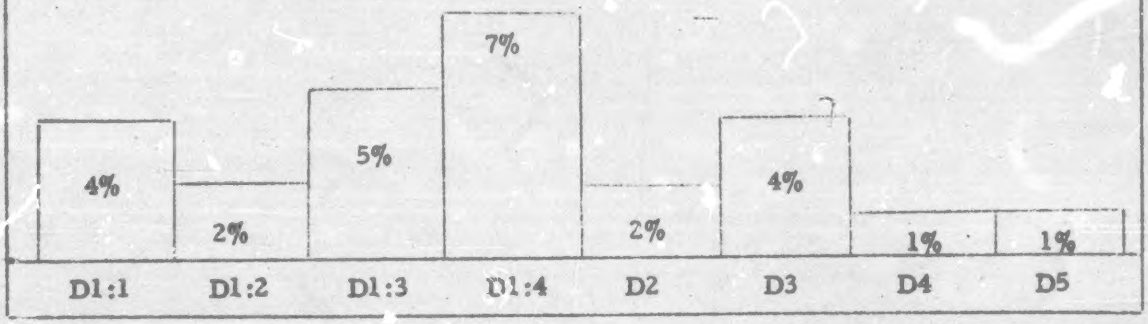
"All syllabuses should consist of suggestions that are applied according to the circumstances. The active planning of the teachers and teacher teams in cooperation with the students is more important than the ready-made syllabuses."

3.8.2 Curriculum for the upper secondary school (Lgy 70)

Box 19 shows how the number of lines in the curriculum for the upper secondary school belonging to the main criterion D are distributed over the sub-criteria D 1:1 - D 1:4 and D 2 - D 5.

Box 19. The number of "LLL" lines belonging to the main criterion D, distributed over the sub-criteria, expressed in percentages of the total number of lines in the curriculum for the upper secondary school (Lgy 70).

Dl:1 = individualization
Dl:2 = student participation
Dl:3 = student initiative
Dl:4 = study technique
D2 = mutual learning from one another
D3 = evaluation
D4 = climate of learning
D5 = adaptation to local requirements



The part-criteria for autodidactics are covered to roughly the same extent in the curricula for the basic school and the upper secondary school. In our opinion, however, self-learning should be provided for to a greater extent in the curriculum for the upper secondary school, while learning in cooperation, "Mutual learning from one another", should have been given more scope in the curriculum for the basic school.

Box 20 presents the relative figures for "LLL" lines belonging to criterion D. The figures, which are percentages, show how great a proportion of the respective sections of the curriculum for the upper secondary school deal with the part-criteria D 1:1 - D 1:4 and D 2 - D 5.

Box 20. The proportion of "LLL" lines in the respective sections of the curriculum, expressed in percentages, dealing with the part-criteria D 1:1 - D 1:4 and D 2 - D 5 (Lgy 70).

part-criteria / Section	D1:1 Individualization	D1:2 Student participation	D1:3 Student initiatives	D1:4 Study technique	D2 Learning from each other	D3 Evaluation	D4 Learning climate	D5 Local requirements	Total %
Goals and guidelines	7	2	2	4	2		1		18
Home-school-society							5		5
Cooperation	7	1	14	1	3	2	1		29
Teaching	5	2	12	12	5		1	1	38
Planning		3	2	2		1		8	16
Information about the students and evaluation of their work	3	2	1	2	1	24	1		34
Teaching aids	3		7	24					34
Student welfare	2						4		6
Swedish				39					39
Social studies									

D 1:1 "Individualization" is dealt with to the relatively greatest extent in the sections of the curriculum on "Goals and guidelines" and "Cooperation", where it is stated, "It is important that the students' interest and desire to work is constantly stimulated at school. This requires the school to show interest in the students and an individual adaptation of the teaching to the temperament and ability of the individual student". Among the factors influencing the forms of teaching and working methods are named the capacity and wishes of the students, although these factors also figure among those restricting the efforts for individualization. "The choice of the form of teaching and the working method must take into consideration the organizational framework, the capacity and wishes of the students, the study material and the results one is attempting to achieve." But the curriculum also emphasizes "the importance of personal interests and ability being decisive in the choice of future education and career. These questions should be kept in mind by the teachers in the teaching and when discussing with students their choice of courses and working methods and their prospects for continued education of various kinds".

D 1:2 "Student participation" in the school work is not taken up at all in the sections of the curriculum on "Home-school-society", "Teaching aids", "Student welfare", "Swedish" and "Social studies", and is little represented in the rest of the curriculum either. "Student participation" occurs most in the section on "Planning", where it is stated, for example, that "Representatives of the students should therefore participate in subject and class conferences when the teaching is planned or general educational issues discussed. In other conferences, too, it should be natural for the students to be represented if there is no formal objection" and "The real purpose of the different opportunities given for concentrated study is to make it possible for the students to devote themselves more wholeheartedly to a larger assignment, preferably also to teach them to plan and carry through such assignments themselves".

D 1:3 "Support for the students" own activities and initiative" is dealt with mainly in the sections of the curriculum on "Cooperation" and "Teaching". The following examples are given from the curriculum: "The construction of the upper secondary school gives the students certain opportunities, by means of optional subjects, changing subjects or in some cases changing line, of obtaining the education that best corresponds to their interests and aptitude." "Thus individual students should when possible be given the chance, within the limits of the part of the course being studied, of concentrating their studies on the particular issues that capture their attention, though still observing what has been said in the curriculum about main items."

D 1:4 "Study technique and communication skill" is in this curriculum as in the curriculum for the basic school clearly predominant among the units dealing with the criterion "Self-learning". It is mainly in the sections of the curriculum on "Swedish" and "Teaching aids" that we have found units corresponding to the demands made by lifelong learning on study technique and communication skill. We have chosen the following examples: "The special study training in the upper secondary school is started with an introductory day or period at the beginning of the studies. The programme should include a questionnaire on habits of study and at the same time students and parents should be provided with information including an orientation on some basic facts concerning the psychology of learning. The purpose of the questionnaire is to attempt to establish the status of the individual student regarding study technique. The diagnosis hereby obtained should be made the basis of future guidance". "The students should be given the opportunity of producing texts, pictures and sound material themselves. Transparencies, films, overhead transparencies, and recordings of a reporting or interview nature are examples of material that can be handled and produced by students without technical difficulties arising." "The teaching in Swedish should accustom and enable the students to make use of works of reference and handbooks in their studies and in general make use of libraries and documentation services."

D 2 "Mutual learning from one another" (interlearning) is treated surprisingly little in the curriculum for the upper secondary school, but a few units satisfying the criterion do occur, mainly in the section of the curriculum on "Teaching". We shall give a few examples: "Cooperation between students should be encouraged as often as the teaching situation permits. In class teaching the teacher can, for example, arrange discussions in the form of a study circle or let the students participate in group work". "Teaching outside the school, such as study visits, excursions, work on outside objects and school camps, offers particularly favourable opportunities for cooperation between the students." Our examples do not indicate any active and whole-hearted interest in training the students to learn mutually from each other. In this respect the curriculum for the basic school is considerably more satisfactory.

D 3 "Evaluation" is relatively well provided for in Lgy 70. In the upper secondary school, as in the basic school, the main principle is still relative grading, even if there is at present an intensive debate on which forms of grading should be used and on whether grades should be used at all. We have earlier defined in seven brief points the criterion for whether evaluation is favourable to lifelong learning.

Of these, "Avoidance of formal graded evaluation in favour of descriptive evaluation" is not to be found at all in the curriculum. "Evaluation of learning results in relation to the student's own ability; individual goal-related evaluation instead of relative" naturally occupies a rather obscure place in the curriculum. Little is said on the subject of "Acceptance of self-evaluation as an integrated part of the school's system of evaluation", even if a certain amount of self-evaluation is recommended in connection with the discussion on the process of learning. No conscious proposal for "Training in self-evaluation and development of understanding for its advantages and disadvantages" is hardly to be found in the curriculum for the upper secondary school. It should on the other hand contribute to a high degree to a "Development of the students' willingness to expose themselves to evaluation by others of their achievements" and to an "Integration of evaluation into the process of learning and development".

Most of the units that can be considered favourable to the development of lifelong learning are to be found in the section of the curriculum on "Information and evaluation". It is emphasized that "Evaluation of the students and their work should be comprehensive and continuous if it is to be used for shaping the teaching. It should be focussed on all sides of the students' development and achievements that according to the goals of the upper secondary school are to be observed". Examples of other units satisfying the criteria mentioned are the following: "It is important that the students feel the evaluation to be a natural part of their studies and an aid in self-evaluation. This goal can be attained if the teachers try together with the students to clarify the relations between the actual results of the work and the ability of each student in various respects". The data obtained by the evaluation is to be used for individual counselling of the students in their studies, for the teacher's evaluation of his own work and for the setting of grades."

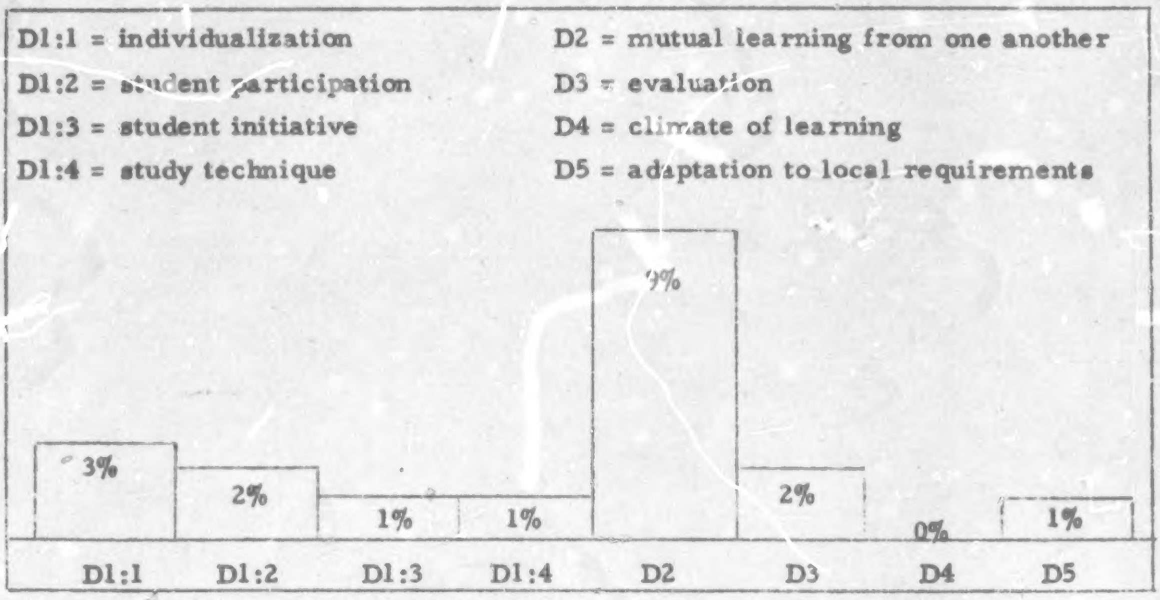
D 4 "Development of a farourable climate of learning" is dealt with as sparingly in the curriculum for the upper secondary school as in that for the basic school. No avoidance of competition between individuals and groups is recommended, nor is anything said expressly about any activation of the students to encourage a positive attitude towards learning. But the curriculum does in the section on "Student welfare" remind school staff that "Good care of the students lays the foundation for all the activities of the school. Each student should be able to feel that he belongs to the community of the school, be able to count on its support and be the object of its care". In the section on "Goals and guidelines" it is stated "For the students the school is a place of work. Their need for activity must be captured there and channelled with their own participation in such a way that they feel pleasure in their work".

D 5 "Adaptation of the curriculum to local requirements" is also dealt with very sparingly in the curriculum for the upper secondary school. This curriculum places less emphasis than that of the basic school on the freedom of school principals, teachers and students to adapt the curriculum to local needs. A few examples can be given: "It is very valuable if the school can more freely have at its disposal some time for firstly, certain items which admittedly recur from year to year but whose scope and position in the course should not be too fixed and secondly, assignments that vary according to local conditions". "The production of teaching material, syllabuses, instruction etc. aiming at cooperation should make the work of the teachers involved easier. Despite this, staff changes and local circumstances are bound to compel continuous modifications in the arrangements."

3.8.3 Committee on the internal work of the school (SIA)

Box 21 shows how the number of lines in the summary of the report on the internal work of the school belonging to the main criterion D is distributed over the sub-criteria.

Box 21. The number of "LLL" lines belonging to the main criterion D distributed over the sub-criteria, expressed in percentages of the number of lines in the summary of the report on the internal work of the school (SIA).



Totally autodidactics is provided for to approximately the same extent in the repott on the internal work of the school as in the curricula for the basic and upper secondary schools. The distribution of the units within the frame of autodidactics that we consider favourable to the development of lifelong learning deviates markedly however in the SIA report compared to the two curricula.

The individualization of the teaching does not have at all so dominant a position as in the curricula, while two part-criteria are treated much more extensively. This applies in particular to D 2 "Mutual learning from one another", but also to a lesser extent D 5 "Adaptation of the curriculum to local requirements".

D 1:1 "Individualization" is the part-criterion within D 1 "Self-learning" that is given most space. The individualization here applies almost exclusively to students with difficulties at school, as shown in the following units: "The demand for remedial teaching stems from the same demands as are made on all the school's teaching: to be able to individualize the teaching, the rate of work, the demands and expectations according to the capacity of the students.

In many cases individualization requires special skill in methodology and in some cases - for example, children handicapped in sight, hearing or movements - special equipment." "The proposals made by the committee below concerning extensive special training in remedial pedagogics for large groups of teachers, plus appointments as study leaders in the work units, are intended to support and make possible this (remedial pedagogical) method of working. Thus the committee does not count on there being any fixed organization of lessons (remedial teaching) for work using remedial methods."

D 1:2 "Student participation" in the school work is stressed in the report, particularly in the section on the methodology of the internal work. The following examples can be given: "The students' own active participation in and responsibility for the shaping of the environment of their own school should be one step in breaking down an attitude of regarding the school as a service". "The methodology used in the school should not be governed by the design of the study materials but should be the result of common planning, implemented by teachers and students in the teaching groups concerned."

D 1:3 "Support for the students' own activities and initiative" is expressed as follows in the report. "The committee's proposals for, among other things, a freer use of resources, flexible student grouping, supportive teaching, free activities during the school day, voluntary activities linked to these, the students' own active contributions to the school environment, the students' participation in planning, variation in laboratory methods, extended parental contacts and group discussion are, like changes in courses of study, group size, and study material stocks, and contacts with clubs and societies, examples of means that can be used in the programme set up by a work unit."

D 1:4 "Study technique and communication skill" is relatively speaking treated much more sparingly in the report than in the curricula. The report states: "At the same time as increased emphasis is placed on basic skills, the other methodological work in the basic school must be focussed on pratical experimental forms of work that try other ways of providing orientation in an area than in written form alone".

D 2 "Mutual learning from one another (interlearning)" has as been pointed out earlier, been given relatively more space in the report on the internal work of the school than in the curricula. The committee has concentrated almost entirely on how "flexible student groups within the framework of a work unit and cooperation by teachers in a teaching team can make possible individualization of not only the amount of material and the rate of work, but also of the actual way of working at school". "This framework for the organization of a school - the work unit - appears to be that which best satisfies the essential demands that can be made on a good school organization:

1. It does not fix the size of the groups but enables these to be varied depending on material, methods and the difficulties experienced by the students.
2. It creates the prerequisites for delegation and a concrete, realistic student welfare and for units sufficiently small to permit the students to experience real co-influence on planning and disciplinary questions.
3. It makes the units sufficiently large to create the possibility of division of work among the staff.
4. It creates - without compulsion - the prerequisites for close cooperation and support in the work."

Although a relatively large amount of space has been devoted to questions of D 3 "Evaluation" in the report, nothing is said to indicate that the committee has any other view of these questions than that expressed in the curricula. The committee has regarded the questions of evaluations largely from an organisational point of view: "It is important that the evaluation in school is felt by all concerned to be a necessary and stimulating return of experience (feedback). This positive attitude can best be created if the local school, with the required support, is trusted to carry out the evaluation itself. The appointment of a special period of evaluation during each school year is recommended as a means of introducing checking of results as a regularly recurring part of the school's activities".

D 4 "Development of a favourable climate of learning" is touched on very little in the report. One example, however, is: "Regulations concerning resource lessons should consequently be removed from the timetable. Instead a relatively detailed section should be inserted into the general part of the curriculum, pointing out school difficulties and different ways of using the total number of lessons available within the reinforcement resources to achieve good individualization in the teaching and a generally positive environment during the school day".

D 5 "Adaptation of the curriculum to local requirements" is regarded in the report mainly from an organizational point of view and it is said, for example: "According to the proposals made by SIA, the school board and council should be given considerable freedom concerning the use of the school's resources. Hereby the measures taken by the school could be adapted better to local conditions and be focussed more on the relevant problems.

This increase in freedom of action should also stimulate the local ability to take initiatives".

3.9 Centring the studies on creativity, flexibility and equality

Like C the main criterion E can be said to represent a qualitative aspect related to the goals and content of education. It was mentioned initially that learning is dependent on curiosity, imitation and play and that learning is connected with the individual's satisfaction of psychological needs. An important prerequisite for lifelong learning is that the spontaneous thirst for knowledge that is characteristic of human beings in the first phase of the life cycle is encouraged and integrated into the school work and not suppressed by forcing upon the student a learning content and working methods that have the effect of inhibiting motivation. At school the students should be given opportunities for free activities and work that can be looked upon as a continuation of the spontaneous games of the pre-school. Dramatic activities, which have many points of contact with play and imitation, should be stimulated at school, so that the students make early contact with the professional theatre and can themselves engage in various kinds of theatrical activities. This can result in its being easier for the students after completing their schooling to take advantage of the cultural activities provided by the community, even if they are not stimulated by their home environment. If the school centres mainly on cognitive work, this can be counteracted in favour of a more all-round training of the personality. Non-cognitive types of creative activity can be introduced into most of the school subjects, even if certain areas of the school work are traditionally considered more suitable for such activities. The demands made on the school by the criterion of creative activity must also result in the students being able to a large degree to choose for themselves both content and working method. The encouragement of originality and imagination is after all difficult to combine with a system representing a rigid teacher-controlled organization. By giving the students the greatest possible freedom within the existing framework of individually satisfying their psychological needs, the school can help stimulate the students to non-conventional solutions of the problems.

Lifelong learning is characterized by flexibility and variety regarding content, study materials, study technique and learning time and should function as an effective tool for bringing about change. This means that the school should work for a positive attitude towards change. In a society with a rapid rate of development the people living there are often faced with completely new demands, given completely new needs. It must then be essential for lifelong learning that people do not feel at a loss in such situations, but are equipped with knowledge, skills and attitudes suited to meet newly arisen problems, This positive attitude towards change can also mean that the individuals themselves act as driving forces in the initiation of changes in school and society. In discussions of the process of problem solution under main criterion C, the different phases in this process were described, naming among other things alternative solutions to problem situations. It is an important task for the school to make the students open to different solutions to problems and not provide them with standard solutions, ready answers and the correct solutions. This again draws out attention towards a freer, more student-directed way of working. Acquiaintance with many different ways of tackling content, teaching aids, study technique and learning time in the school work helps make people positive towards experimentation when they are faced by new situations and new environments.

Lifelong learning encompasses everybode and in contrast to the forms of education that lead to the selection of an elite, it represents a democratization of education. This demand for equality means that the school must show special consideration of the student groups that for one reason or another have a worse start than other students. This means that the question of sex roles should be discussed from different aspects but it also means that in the practical work done within the school the students should experience a genuine equality between the sexes. Another question of equality concerns students who are physically, mentally or socially handicapped. Information about different kinds of handicap and discussions on possible solutions of the problems of the handicapped should be included in the school work. Most important, however, is that all the students, school administration, teachers and ancillary staff in the school strive actively to help bring about an integration of handicapped and normal student groups. The home environment and study tradition is decisive for whether people are to participate actively in lifelong learning or be left outside. The school should support students lacking this stimulus at home. This can be done by means of reinforced study and vocational guidance and various forms of supportive teaching. After the completion of compulsory schooling, this support can take the form of so called catchment activities. Another important task for the school is to strive for tolerance towards and understanding of students with deviating behaviour or special problems, As in the case of handicapped students, this should be done by means of information and practical action in the school work. All those active within the school should cooperate to solve the problems around handicapped and deviating students and not simply leave the work to a handful of specialists. Another aspect of the question of equality is geographical. Since lifelong learning encompasses everybody,the school should support students living in regions that lack certain alternative courses of study. This can be done by means of distance education or by making arrangements for students to travel to places where the desired education is available.

Summary of criterion E "Centring the studies on creativity, flexibility and equality

E 1 Creativity.

Encouragement of free creative activities, creative thinking, drama activities and non-cognitive types of creative activity.

Encouragement of originality, imagination, natural curiosity and a spontaneous thirst for knowledge.

Support for divergent thinking.

E 2 Flexibility.

Support on the part of the school for the students' positive attitudes to and ability to direct changes.

Avoidance of binding the students to readymade problem solutions and preparing them to accept changes.

Encouragement of openness and positive attitudes towards new situations and environments and to experimentation.

E 3 Equality.

Equality between male and female students.

Equality for handicapped students.

Encouragement of students from homes without a tradition of study to continue with their studies.

Tolerance towards and understanding of students with deviating behaviour or special problems.

Possibility of arranging distance education or other education in areas of study not available in the home region.

Possibility for students to travel to places where the desired education is available.

3.9.1 Curriculum for the basic school (Lgr 69)

The number of "LLL" lines belonging to the main criterion E "Centring the studies on creativity, flexibility and equality" are distributed over the sub-criteria, expressed in percentages of the total number of lines in the curriculum for the basic school, as follows:

E 1 "Creativity": 3 %
E 2 "Flexibility": 1 %
E 3 "Equality": 11 %

The emphasis on equality, part criterion E 3, is very apparent under main criterion E. Special sections of the curriculum are devoted to special supportive measures for the benefit of student groups that are at some kind of disadvantage. The problems of sex roles are discussed in detail and examples are given of ways of taking up the issue at different school levels and within different subjects. Regarding handicapped students, there is thorough organizational and methodological advice for dealing with various kinds of handicap and for the care of children with deviating behaviour and special problems. Remedial teaching and student welfare in the basic school is dealt with very comprehensively in Lgr 69. The demands under part-criterion E 1 "Creativity" are to some extent covered in the curriculum, but not to a satisfactory degree. From the point of view of lifelong learning it is essential that more opportunities for creative activities be given during compulsory schooling. Such stimulus can contribute original solutions in future life situations, solutions that advance the development of society. The part-criterion E 2 "Flexibility" is the least satisfactorily covered under main criterion E. We consider this criterion to be of great importance, since the rapidity of developments today requires flexible members of society. The Swedish basic school is possibly still using far too much of the 'guardian' approach, which will not create students willing to engage in lifelong learning.

Box 22 presents relative figures concerning the number of lines favourable to lifelong learning ("LLL" lines) belonging to criterion E. The figures, which are percentages, show how great a proportion of the respective sections of the curriculum deal with the part-criteria E 1 - E 3.

The part-criterion E 1 "Creativity" is represented most in the section called "Swedish". The following units are examples of school activities that can contribute to free creativity and encourage originality in the solution of problems: "Creating and shaping are activities practised by the child from earliest childhood. At school it takes place in e. g. drawing, handicraft, the natural sciences, domestic science and art. It also takes place when the students freely express their experiences orally, in writing and in other ways in dramatizations, dialogues, song, music and dance. When they plan a piece of work, choose tasks and forms of work or in other ways take the initiative or make suggestions and then realize then, they are also doing creative work" and "The students should be accustomed to obtaining knowledge

Box 22. The proportion of "LLL" lines in the respective sections of the curriculum, expressed in percentages, dealing with part-criteria within the main criterion E (Lgr 69)

Part-criteria / Section	E 1 Creativity	E 2 Flexibility	E 3 Equality	Total %
Goals and guidelines	3	2	7	12
Home-school-society			1	1
Cooperation	4			4
The free choice			28	28
Study and vocational guidance		7	20	27
Teaching	3	2	12	17
Student welfare	1		29	30
Evaluation of students' work			5	5
Planning		5	8	13
Swedish	6	1	3	10
Social studies	3			3

through observation and questions should be encouraged throughout the entire time at school. A good foundation should be laid at the lowest school level, when the child's natural curiosity is still strong." The sections "Home-school-society", "The free choice", "Study and vocational guidance", "Evaluation of the students' work" and "Planning" are not represented under the part-criterion E 1.

The part-criterion E 2 "Flexibility" has most of its units in the section "Study and vocational orientation". The following unit has been taken from the section "Teaching": "With regard to texts that primarily express values, the teacher should be particularly aware of the risk that the knowledge can become undifferentiated and superficial and that the students become fixed in prejudices and stereotyped ideas. This can partly be conteracted by accustoming the students from an early stage to obtaining information from different sources, where the same phenomenon is described in different ways". Here measures are suggested that can help make the students more open to alternative solutions to problems. The part-criterion is given far too little coverage under the majority of the sections of the curriculum.

The part-criterion E 3 "Equality" is well-covered in Lgr 69. The following units have been taken from the sections on "Teaching" and "Student welfare" respectively and give examples of the supportive measures for tolerance towards and understanding of students with special problems that abound in the curriculum: "Remedial teaching is a natural measure for offering help to students who, owing to special difficulties in the school work, need complementary or supportive teaching parallel with the rest of the teaching in a normal class, and to students who, for physical or mental reasons, display such deviations in development and maturity that the extent and type of the measures required can only be implemented satisfactorily in a special class" and "It is particularly important for teachers to try to encourage good working hygiene, observe working posture and when planning the teaching, take into consideration the students' physical and mental capacity, and in this devote particular attention to the distinctive students". Only the sections "Cooperation" and "Social studies" are not represented under part-criterion E 3. It is possibly somewhat surprising that these particular sections have not got a single unit.

Thus the equality criterion is very well covered by the curriculum, while deficiencies are apparent, above all in the part-criterion E 2 "Flexibility".

3.9.2 Curriculum for the upper secondary school (Lgy 70)

The number of "LLL" lines belonging to the main criterion E "Centring the studies on creativity, flexibility and equality" are distributed over the sub-criteria, expressed in percentages of the total number of lines in the curriculum for the upper secondary school, as follows:

E 1 "Creativity": 1 %
E 2 "Flexibility": 1 %
E 3 "Equality": 6 %

Box 23 presents the relative figures concerning the number of "LLL" lines belonging to main criterion E. The figures, which are percentages, show how great a proportion of the respective sections of the curriculum deal with the part-criteria E 1 - E 3.

Box 23. The proportion of "LLL" lines in the respective sections of the curriculum, expressed in percentages, dealing with part-criteria within the main criterion E (Lgy 70)

Part-criteria / Section	E 1 Creativity	E 2 Flexibility	E 3 Equality	Total %
Goals and guidelines	4	1	6	11
Home-school-society				
Cooperation			11	11
Teaching		1	6	7
Planning	1	3		4
Evaluation of students' work			1	1
Teaching aids	7			7
Student welfare			39	39
Swedish				
Social studies				

A unit taken from the section on "Goals and guidelines" under part-criterion E 1 is the following: "Aesthetic-practical subjects give the students the chance of training their creative ability and developing their prospects of experiencing the forms of expression that utilize rhythm and tone, design and colour".

The emphasis in E 3 is placed in the section "Student welfare". One of the many measures for student welfare taken up in the curriculum for the support of students with special difficulties is presented in the following unit: "The school counsellor should devote particular attention to the students who, owing to their home conditions, can be in need of advice and support and to the students who, for reasons other than health, are often absent from lessons or who drop out of their schooling".

3.9.3 Committee on the internal work of the school (SIA)

The number of "LLL" lines belonging to the main criterion E are distributed over the part-criteria E 1 - E 3, expressed in percentages of the total number of lines in the summary of the report on the internal work of the school, as follows:

E 1	"Creativity":	0 %
E 2	"Flexibility":	0 %
E 3	"Equality":	3 %

Like the curricula, SIA has taken up issues under the part-criterion E 3 "Equality". The report has not taken up at all problems that can be classified under E 1 and E 2. In the same way as with the part-criteria under the main criteria A, B and C, it is a question of organizational ways of attacking the problems posed in part-criterion E 3. Students with special problems can get help from specially trained experts. Other supportive measures suggested are special methodology, supportive teaching and specially adapted study and vocational guidance. The following unit is an example of one of the several concrete measures recommended by the committee for solution of the problems afflicting students with special difficulties: "Even though we should strive to solve the problems within the work units, there is bound to remain a small grup of students who demand such intensive help that they must form small fixed groups outside the work units during a part or the whole of their time at school".

The picture for the main criterion E is the same as in Lgr 69. E 3 "Equality" is very well represented while E 1 "Creativity" and E 2 "Flexibility" have few units.

4. THE INTERPRETATION AND APPLICATION OF THE CURRICULA

The review given above has shown that the general sections of the Swedish curricula largely satisfy the requirements we have set up as being favourable to the development of lifelong learning. But it is not enough for the intentions of the curricula to be favourable. If these intentions are to have any effect, they must naturally be interpreted and applied in such a way that the school work provides the students with the skills and attitudes needed for effective lifelong learning.

In this sections of the report we will present firstly, an investigation into interpretations of the curriculum for the basic school and secondly, some research projects on the actual situation in school. We must emphasize that we have not ourselves carried out any empirical research in connection with the curriculum analyses. We have made a quick inventory of projects dealing with what takes place at school. The inventory makes no claims to be a complete survey of Swedish educational research that could be relevant to our purpose. Such a survey would have required resources in both time and personnel far beyond those at our disposal in this project. The investigations we quote should be looked upon as examples of what has been discovered in various studies about the work done in Swedish schools. But we think that these investigations provide satisfactory information on how the intentions of the curricula have hitherto been applied in reality.

These investigations have not been carried out for the express purpose of studying the extent to which the intentions of the curricula with regard to lifelong learning have been applied in practice. This means that we do not have empirical material to cover all our criteria. Let us make it clear from the beginning that the empirical material presents a picture that is far less beneficial to lifelong learning than the curricula had led us to hope.

4.1 Interpretation of the curricula

Before dealing with the investigations concerning the actual school work, we wish to give a brief account of a study concerning interpretations of the content of one section of the curriculum for the basic school (Lgr 69).

A research group at the Department of Educational Research of the University of Gothenburg (Stencrantz et al., 1973) have studied how different groups interpret the section of the curriculum dealing with goals and directives (Lgr 69). The research group first interpreted the section themselves and worked out various goal areas that they considered the section encompasses. Each goal area was then defined with key-words. In this way eight goal areas with defining key-words were obtained. The content of these goal-areas is very similar to some of our criteria. Below we give the eight goal areas and in parenthesis those of our criteria that we think are close to the goal areas.

.	Development of pupils' emotional life	(C 1 all-round personal maturity)
.	Development of self-reliance	(C 3 development of selfconfidence
.	Development of intellectual skills	(C 4 development of ability to solve problems)
.	Training of creative talents	(E 1 creativity)
.	Esthetic training	(C 2 understanding and renewal of various value systems)
.	Democratic training	(C 2 understandning and renewal of various value systems)
.	Critical training	(C 4 development of ability to solve problems)
.	Development of qualities desirable in working life	(D 4 development of varourable learning climate).

This is naturally not a question of a complete parallel, but it is nevertheless remarkable that the research group have almost only extracted those goals in this section of the curriculum that correspond to criterion C, individual maturity - self-realization. We know that the sections of the curricula dealing with goals and directives also take up horizontal and vertical integration, autodidactics and the channeling of the studies towards creativity, flexibility and equality. 19 groups, each with about 7 members, were asked to state what they thought these eight goal areas really refer to. The groups included representatives of teachers, pupils, parents (through the Parents' Association) and of different political parties, employers and employees (through trades unions). Those participating in the various groups were prepared for the task in that they were given in advance an extract from the section of the curriculum dealing with goals and directives to read, together with the eight goal areas named above. The instructions to the group members consisted of their beining asked to describe what each goal area meant for them personally, e.g. "What does democratic training mean to you?" "What significance do you place in this concept?" Almost all the groups found it difficult to define the content of the goals precisely. Some members put forward the opinion initially that the section on goals and directives is not intended to be defined more exactly, since after such definition it can no longer be embraced by advocates of different opinions and ideologies.

An analysis of the goal formulations produced by the groups resulted in more than 700 goals, grouped in 39 goal areas. These 39 goal areas were classified into six main categories:

- The individual (1) : Development of the personality (C)
- The individual (2) : Aesthetic and physical development (C)
- The individual (3) : Intellectual development (D)
- Social interaction (1) : (D)
- Relations to society (1) : Social life (A)
- Relations to society (1) : Working life (A)

These six main categories correspond approximately to our main criteria that are given in parenthesis. In this case goals that are close to our criterion C do not predominate in the same way as they did in the goal areas originally suggested by the research group. In concluding their report, the research group states, "In summing up the interviews it can be said that they have given a large number of interpretations of the section of the curriculum (Lgr 69) dealing with goals and directives. They define Lgr 69 more closely but are still on a relatively general level. There is a noticeable lack of goals that give concrete examples of what the curriculum's phrases mean at school, in the home, among one's fellow-students - goals that can help the teacher when he is planning the teaching and putting it into effect".

Thus it is probably difficult for the individual teacher even to translate the intentions of the curriculum into words that state concretely which measures should be taken.

4.2 Overall goals in general

The material that we have classified as being favourable to lifelong learning is called overall goals in the school debate. The Stockholm School of Education made a study (Ljung, et al., 1973) that concerned among other things what students thought the basic school had given them. The students were asked four years after they had completed their schooling. The questions took up both knowledge and more overall goals. The students were asked to state for each question one of the alternatives "More than enough", "Enough", "Not enough" or "Don't know". The results showed that the students to a much greater extent answered "Enough" when the questions concerned knowledge goals than when they concerned overall goals. Students belonging to higher social groups or a high ability group answered to a greater extent than other students "Not enough" to questions concerning the overall goals. The questions in which the alternative "Not enough" gained the greates proportion of answers were the questions dealing with questions of personal relations and economic training.

We interpret the results of the study as indicating that the school work should pay more attention to the future needs of the students and concentrate more on the overall goals, goals that should also satisfy the demands that can be made for conditions favourable to lifelong learning.

4.3 School work and the demand for horizontal integration

Horizontal integration as a criterion of support for the development of lifelong learning covers seven part-criteria:

A 1 integration school - home
A 2 integration school - society
A 3 integration school - working life
A 4 integration between school subjects
A 5 integration school - mass media
A 6 integration school - cultural life
A 7 measures for the practical application of the curricula in the school work

In general the contacts between the school and parents interested in the school are probably satisfactory. One frequently hears teachers and school principals complain, however, that the parents they most need to make contact with are the most difficult to reach.

The educational development block in Uppsala describes a nation-wide questionnaire that was used in a study of "problems connected with transition between school levels and school forms" (Axelsson & Ekman, 1973). Contacts between school and home were also taken up in the study. Representatives of the parents' associations were asked what can be done to reach the parents with whom the school has no contact. It was suggested that cooperation should be established between the parents' associations and the school for this purpose and that the class teacher and the class representative of the parents' association should be responsible for initiating this cooperation. In practice this could be done by means of telephone contacts, written information, a small weekly information sheet sent to the homes, or by personal visits to the homes. Further suggestions were that information should be sent to parents about what had been discussed at parents' meetings and class meetings. It was also thought that the meetings must be made more attractive by having more interesting programmes. The parents should be invited in smaller groups for discussion of current problems. The aim should be to support, advise and help. The parents' associations should be able to influence the opinion groups that contact the parents in question, so that these groups help to make it plain to everybody how important it is to have close contacts with the school.

As far as the integration of school and society is concerned, we can here only state that the intentions of the curriculum in this respect often come to the fore in the current school debate and that study visits to various social institutions have become increasingly common. The school in its turn also receives visitors representing different social institutions. Part of the school's traffic training, for example, is regularly taken care of by policemen.

The integration of school and working life is satisfactory, mainly because the upper level of the basic school has a special appointment for study and vocational guidance. This member of the staff organizes the visits paid by students to work-places and their compulsory practice periods in different jobs. In the upper secondary school a number of experiments on various models for study and vocational guidance have been carried out in several different school districts. The following can be reported from an investigation (Skoglund, 1970) carried out at the Department of Educational Research of the Uppsala School of Education: Of the different sources of information for vocational guidance that the students can come into contact with, those appreciated most are personal contacts with various skilled trades and professions, study visits and printed material on vocational guidance. In addition the students considered that teachers should take up questions concerning the choice of work during normal lessons.

We have no empirical results to present on the integration of different school subjects and of school and the mass media. In general, however, it can be said that in the lower and middle levels of the basic school, which have a class teacher system, the integration of subjects does not cause any problems. In the upper level of the basic school and in particular in the upper secondary school there is probably still a lot left to be done before the intentions of the curricula are implemented, even though it is noticeable in the school debate that efforts are being made in many quarters to increase the integration of school subjects.

Many local attempts to integrate the school and cultural life have been reported, not least in connection with the freely-chosen work done by the upper level students. The overall goals of the curriculum in these respects are probably satisfied to a widely varying degree from one school district to another.

In some places measures for the practical application of the curricula in the school work have been tried out within the framework of municipal so called educational development blocks. Here researchers and teachers have received financial support from the National Board of Education and the local boards of education to carry out experiments, some of which have been devoted to testing different measures for realization of the overall goals of the curricula. But in general it must nevertheless be said that the lack of measures for the practical application of the curricula is a major problem for the Swedish school.

4.4 School work and the demand for vertical integration

Vertical integration as a criterion for support of the development of lifelong learning encompasses three part-criteria:

B 1 integration lower level - pre-school experiences
B 2 integration between the different school levels
B 3 integration school - adult education

A compulsory pre-school for six-year-olds is already being planned and coordination between this and the basic school will be built into the organization. In some municipalities there are already experiments underway in which the pre-school has been integrated into the lower level of the basic school. The municipal and private pre-schools have regular study visits and other contacts with the school in order to prepare the pre-school students for when they begin their compulsory schooling in the lower level of the basic school.

We have earlier referred to a study on "Problems connected with transition between school levels and school forms" (Axelsson & Ekman, 1973). We would like to return to this study in this particular context. In order to find out what routines were used in schools throughout the country when students transferred to the upper level, a questionnaire was distributed in 1971 to 104 randomly chosen schools all over Sweden. The questionnaire was addressed to school principals, teachers, student welfare personnel and representatives of the parents' associations. It emerged that the schools usually try to pass on information between the different levels, often at various kinds of conferences. In many places information about the students is collected in connection with their transference to the upper level. This information concerns not only the scholastic achievements of the students, but also the development of their personalities. The study expresses doubt as to this latter kind of information. The writers declare that "this documentation undoubtedly falls into good hands, but it is nevertheless doubtful whether such a paper should accompany the student to a new school level. There are several reasons: This evaluation of the student by the middle level teacher is necessarily very subjective. Since the evaluation is documented in writing it becomes definite; there is a risk that teachers and student welfare staff in the new school level are influenced by a written evaluation of this type, so that there is full scope for the so-called self-fulfilling prophecy - the student functions in accordance with the treatment he receives, treatment that is based on the school's advance attitude towards the student". The writers do not however reject the idea of information of a non-cognitive kind being passed on from one school level to the next. They suggest that the information should be given orally and not until after the initial period when the new teachers have learnt to know their new students and formed their own opinions of them. They also consider that information about the students that the teachers need to have right from the beginning of term about certain illnesses or serious disturbances should be given by the school nurse or psychologist one of the first days of the school term. This information should be given in such a way as to make it plain to everyone concerned that these students need extra care and attention.

The report points out that the teachers have the most frequent and natural contact with the students and that they should therefore be given the opportunity of engaging in preventive student welfare work. They should avoid simply relying on the members of the student welfare team (school psychologist, counsellor, nurse) to take care of the various problems that arise in the students' relations to the school. It is also noted that intelligence testing of the students naturally has no function to fill when the choice of line in the upper level is based on interest, but it can be valuable if the school psychologist, for example, can help the students to see their own real interests more clearly.

Information and guidance for the students going from the upper level to different courses in the upper secondary school or to other training appears to be reasonably satisfactory, mainly because of the work done by the special staff for study and vocational guidance.

4.5 School work and the demand for measures for individual maturity - self-realization

Measures for individual maturity - self-realization as a criterion of the school's efforts to support the development of lifelong learning encompass five part-criteria:

C 1 all-round personal maturity
C 2 understanding and renewal of different systems of values
C 3 development of self-confidence
C 4 development of ability to solve problems (problem awareness and critical thinking)
C 5 orientation towards the future

To assess how well the school in practice applies the parts of the curricula that correspond to the criteria for individual maturity - self-realization, we have primarily made use of a report from the Malmö School of Education. Between 1967 and 1972 a project called "Social development and training in the comprehensive school" was conducted at the Department of Educational and Psychological Research, Malmö School of Education. Here we shall in particular relate to the part of the project that worked on "optimal resistance to authority and propaganda"(Jernryd, 1974).

When the results of the investigation were reported, it was pointed out "that the school aims at a general positive personality development in the students, the ultimate goal of which is to prepare them to function as good citizens in a changing society". The question is put: "To what extent do the school and its teachers succeed in realizing the intentions of the curriculum in this respect?" The report partly answers the question by describing a study of age and sex differences, measured with instruments constructed for the purpose of measuring dependence - independence in students in several different grades in the basic school, their ability to evaluate information critically and to adopt an independent attitude, together with different aspects of the personality.

Data were collected from 428 students in grades 5, 7 and 9 at two schools in Malmö. These data were processed by means of multi-factorial analysis of variance. Most of the analyses showed no significant differences between the three age-groups. One would have expected to find differences if the school had succeeded in realizing the intentions of the curriculum. Only one of the five analyses made of the evaluation of information showed that the students' ability in this respect increases with age, "Since the curriculum emphasizes to a greater degree for grades 7 and 9 than for grade 5 that the students should receive knowledge and skills that promote a development towards independent opinions, one would have expected to find greater differences in the means of the middle level and the upper level of the basic school than is in fact the case in the present investigation". This should be considered in the context of the project's earlier discovery that the students' "evaluative ability" is more directly related to the teaching and training in critical thinking than to the individual student's intellectual capacity.

The results obtained give a relatively discouraging picture of the way in which the school and its teachers succeed in realizing the intentions of the curriculum regarding the promotion of the students' ability to evaluate information critically. The report points out, however, that "despite this it should not be concluded on the basis of these results that teachers do not follow the directives given in the curriculum. Since the concept "evaluative ability" denotes not only certain cognitive skills, but also a disposition to react selectively to different types of information and an inclination to accept more matter-of-fact and objective arguments, it can hardly be possible to promote such a development solely by teaching the students in individual subjects and on separate points according to the directives given in the curriculum of 1969. It should instead be a prerequisite that these exercises should constantly permeate the teaching throughout all the school levels. Therefore it would be desirable for the curriculum and the school to emphasize to a greater extent than at present at all levels knowledge and exercises that would motivate the students and provide a foundation for an active and critical evaluation, resistance to one-sided, subjective information, and the adoption of an independent standpoint. Thus the reason for the negative results arrived at here can be that critical thinking and the adoption of independent standpoints by the students is only possible in individual, isolated teaching situations and not in the total teaching environment. It is also conceivable that the school of today stresses to far too great an extent a conforming behaviour in the students, which in its turn has an inhibiting effect on both the students' ability and their motivation to make up their minds independently and responsibly."

The investigation found no evidence that the students become more independent as they get older. The students in grade 7 were also found to be less independent than those in grades 5 and 9. The reason for this was thought to be that the students in grade 7 have got new teachers and partly new classmates after the transition from the middle level to the upper level of the basic school. As a result the social pressure that the students assert on each other and that the teachers assert on the students is not as powerful as in the other two grades.

A more positive picture is reported from the analyses of variables characterizing the prejudiced personality. The students' authoritarian, rigid and dogmatic attitudes were found to lessen as they grew older. In all grades, however, the mean was over rather than under the schools' middle point and the report notes "that even if the development is for the majority of students to display more tolerant and reflective attitudes, greater efforts must be made by both school and society if the young people of today are to be considered unprejudiced. Among the features of the prejudiced personality syndrome are a moralizing and punishing attitude, i.e. a tendency to point out, condemn, reject and punish individuals who violate conventional values, to accept influence from sources felt to be authorities and to favourize what is practical and concrete over the theoretical and abstract. The results of the analyses made of the variables included in this investigation, which are related to the prejudiced personality syndrome, agree with the development trend that could be observed in the analyses of authoritarianism, the dogmatism and rigidity scales, which further support the theory that the students between the ages of 10-16 develop positively. Thus as the students grow older they appear to be less inclined to be influenced by one-sided information, less punishing in their attitudes and less concrete."

The investigation also took up the development of the students' self-reliance. "An important feature of the goals for the school's teaching is to create self-reliance in the individual student. In some of the analyses made here it appears at first glance as if the students' self-confidence decreases in the higher grades. Supplementary analyses showed, however, that the increasing discrepancy between the students' evaluation of their own ego and their ideal, which is assumed to reflect the individual's self-evaluation, has been caused by the fact that, compared to the younger students, the higher grades have set up higher goals (ideals), which they strive to attain. This can be founded on a strong need for achievement and a non-acceptance of the status quo. A contributory reason for the increasing discrepancy between the ego and the ideal in older students can also be that the older students have a somewhat greater self-instinct when evaluating their own ego. Thus these differences between the grades can be regarded as showing a positive development."

"In summing up it can be said that the present investigation reports the results of a study of age and sex differences, which shed some light on the extent to which the school has succeeded in fulfilling the intentions of the curriculum with regard to the general development of the students' personalities. Some of the results give a positive picture of how the school has succeeded in this respect, while other results produce a more negative view. The foremost reason why the school has not succeeded in every respect is probably that several of the goals for social training stated in the 1969 curriculum for the basic school presuppose that the students are at an early stage and in a responsive environment given more opportunity than is now the case of training these skills in all the varying situations that the work and environment of the school can nevertheless provide. In addition one can query on the basis of these results the suitability of placing the change from one teaching system to another just at the ages when the students are experiencing uncertainty, anxiety and the search for a personal identity. An earlier and more successive transition from the class teacher to the subject teacher system would perhaps give a smoother adjustment to school and the adult society."

4.6 School work and the demand for the development of autodidactic ability - development of readiness for new learning and re-learning

Our criterion "Autodidactic-development of readiness for new learning and re-learning" encompasses eight part-criteria:

D 1:1 The individualization of the teaching

D 1:2 Opportunities for the students to participate in the planning, execution and evaluation of the learning

D 1:3 Support and opportunities for self-learning

D 1:4 Development of study techniques and communication skill

D 2 Mutual learning from one another in a group

D 3 Evaluation

D 4 Development of a favourable learning climate

D 5 Adaptation of the curriculum to local needs

We have said earlier that in our opinion autodidactics is the most central concept when it comes to converting the idea of lifelong learning into practical skills. Therefore it is particularly important to study the extent to which the students receive at school training that will promote the development of their autodidactic ability. There is an extensive research project on which the discussion of the learning process in the basic school can be based.

At the Department of Educational Research, Gothenburg School of Education, work has been underway for the past few years on a project called "Didactic process analysis" (Bredänge et al., 1971 and 1972). The aims of the project include mapping the main structures in the teaching process. The DPA project includes 80 teachers and their classes, all in grade 6. 60 of the classes are normal classes and the remainder are special classes for children with problems or handicaps. Thus our assessment of the extent to which autodidactic development is favoured in the school will here be based on investigations concerning only grade 6. There is however no reason why the teachers and classes studied here should in any essential way differ from other class teachers and classes as far as school work is concerned. The experiment group was compared with a national average of middle level teachers, with regard to age, sex and marks in pedagogics and school subjects. This comparison showed that the experiment group did not differ from the national average on any essential point.

In the study the teaching process was registered by means of sampled TV recordings and continuous tape recordings. 10 lessons were recorded in each class and systematic observation analysis and assessments were carried out. The teaching processes in the different classes were studied on two consecutive days. The researchers themselves considered this a makeshift solution, necessitated by technical and financial difficulties and point out that it can be regarded as a restriction on the representativeness of the material. Six observers were used to obtain the observation material. The assessor agreement was checked and found to be on roughly the same level as the demans usually made on test reliability.

A comprehensive literature search was carried out within the project and the variables included in the observation schedule and the assessment schedule have been taken from a large number of researchers who have previously worked on different kinds of process analyses. Two observation schedules were used, one for teacher behaviours and one for student behaviours, and a few assessment variables. The observation schedule for student behaviours was divided into two sections, one for behaviours that the majority of the students carried out during the observation and one for individual student activities in and outside the collective teaching process. The main features of these two sets of variables for the students' behaviours were in agreement.

We give below some examples of the variables. We consider that some of them agree to some extent with some of our criteria for what can be favourable for the development of autodidactic ability and the criterion in question is then given in parenthesis after the variable.

Teacher behaviours

001 Mediates orally reproducible memorized knowledge.
The teacher mentions, lists, gives an account of describes etc. material that the curriculum prescribes or that he himself possibly considers the students should learn.

004 Mediates knowledge by means of study material.
The teacher writes on the board, in a student's exercise book. Points to a map, wall chart. Shows pictures, objects. Plays an instrument. (D 1:4)

006 Knowledge-checking practice questions.
The teacher asks questions in which the student is to judge, compare, differentiate between, place in relation to, discuss, criticize etc. material prescribed by the curriculum or that he himself possibly considers that the students should learn. (D 1:3)

008 Heuristic practice questions.
The teacher gives clues by using the student's ideas, adds or develops ideas from the student clarifies in some other way etc. This applies to questions where the student is to assess, compare, differentiate between, choose between, place in relation to, discuss, criticize etc. material prescribed by the curriculum or which he himself considers that the students should learn. (D 1:3)

009 Affective questions.
The teacher asks questions in which the student is to express attitudes, evaluations, opinions, interests, feelings etc. (D 1:3)

010 Is involved in the teaching by listening - being attentive, inspecting - examining.
a) Listens to students talking, participates in students' work. Walks around and examines students' work.
b) The teacher walks around in the classroom with his attention directed on the students' work. (D 1:3)

019 Gives teaching instructions.
Hands out and follows up instructions, gives and asks for information connected with the teaching.

036-042 Is taken into student's confidence. Shows affection, sympathy, personal interest in the student. Investigates, mediates. Leads relaxation, jokes. The teacher accepts, demonstrates feelings with the intention of making the student feel understood. (D 4)

043 Individual teaching. (D 1:1)

044 Group teaching. (D 2)

045 Whole class teaching.

051 Reinforces group-positive behaviours.
By giving collective praise or by praising or encouraging the individual's contribution to a group's work. (D 2)

058 **Encourages students to draw their own conclusions.** Presents the students with a problem and tells them to find different ways of solving it (learning by discovery). (D 1:3)

059 **Encourages students to find out things for themselves.** Emphasizes importance of self-initiated work, refers to reference literature etc. (D 1:4)

Student behaviours (individual behaviours in and outside the teaching process)

120 **Speaks, prompted by teacher.** Student speaks at teacher's request, answers question put by teacher or teacher's substitute. Smaller group of students or a single student repeats what the teacher, tape-recorder or radio says. (D 1:4)

122 **Speaks, on own initiative to teacher, relevant to teaching.** (D 2)

123 **Speaks, on own initiative to teacher, not relevant to teaching.** (D 2)

The table below gives means and standard deviations for the variables given in the examples. Variable 001 has a mean of 27,8, which means that it has been marked in 27,8 of the approx. 600 observation occasions.

Variable	M	S
001	27,8	7,0
004 (D 1:4)	17,1	7,1
006 (D 1:3)	12,0	4,6
008 (D 1:3)	0,3	0,4
009 (D 1:3)	0,5	0,6
019	34,6	6,9
036-042 (D 4)	1,5	1,3
043 (D 1:1)	21,4	10,5
044 (D 2)	2,2	3,8
045	63,5	12,3
051 (D 2)	0,1	0,1
058 (D 1:3)	1,0	0,1
059 (D 1:4)	0,1	0,2
120 (D 1:4)	25,9	6,0
122 (D 2)	8,0	4,1
123 (D 2)	0,6	0,8

As can be seen above, there are teacher behaviours favourable to an autodidactic development that have relatively high frequencies, e. g. 004 "Mediates knowledge by means of study material", which we consider favourable for D 1:4 "Development of study teachniques and communication skill". Other examples are 006 "Knowledge-checking practice questions" and 010 "Is involved in the teaching by listening, paying attention, inspecting and examining". We consider these teacher beaviours to be to some extent favourable to our criterion D 1:3, which implies encouragement of and opportunities for self-learning. It is plain that the teacher behaviours that are favourable to lifelong learning and relatively frequent are primarily such that can take place in so called whole class teaching. But it is also essential to point out that of the three forms of teaching 043 "Individual teaching", 044 "Group teaching" and 045 "Whole class teaching", the individual teaching that we naturally look on as being favourable to D 1:1 "Individalization of teaching" has a comparatively high frequency. As far as D 1:4 "Development of study techniques and comuunication skill" is concerned, we include in this criterion "the students' own search for information". This corresponds almost directly to the variable 059 "Encourages the students to find out things for themselves". But as can be seen this teacher behaviour is very unusual.

Our criterion D 2 "Mutual teaching of one another", which corresponds to the teaching form 044 "Group teaching", the teacher behaviour 051 "Reinforces group-positive behaviour" and the student behaviour 122 "Speaks on own initiative to teacher, relevant to teaching" are only satisfied to a very minor extent. Our criterion D 4 "Development of favourable learning climate" corresponds primarily to the very rare teacher behaviour 036-042 "Is taken into student's confidence". Otherwise we have not found any real equivalents among the variables to our part-criteria within the autodidactic area.

In order to obtain a collected picture of the teaching process, the research group built up an average profile based on the mean number of markings for all the teachers studied and variables observed. The collected picture of the school work produced by the researchers in this way does not look particularly bright from the perspective of lifelong learning. We quote, "The teaching form that clearly dominates the picture is whole class teaching or collective teaching, where the teacher directs his attention to the whole class at once". "Thus we find a rather traditional picture of the lecturing teacher with the students on the receiving end." "If one looks more closely at the knowledge mediating behaviours, the predominant behaviour proves to be the mediation of factual knowledge, giving accounts and descriptions, that require the recipient to register something." "The 'presentation' function of the teacher can be summarized thus: The teacher conducts predominantly collective teaching, in which questions and teaching material have a content that is cognitively simple to reproduce. His steering of the process is clearly pronounced. Only small deviations from this pattern occur in some categories within individual subjects."

In the latter of the two DPA reports used as a basis for our discussion here, Bredänge and Odhagen (1972) declare concerning the average profile that "*such a description is naturally of interest since it provides an* overall picture of what takes place in the classroom". They continue: "But the description must necessarily be only approximate and we must reckon on there being many variants around this average description, which the method is incapable of distinguishing. Some teachers are probably rather close to the mean in all categories. Others can conceivably be at varying distances from the mean on the negative or positive side in the respective categories." By means of latent profile analysis, the average profile was broken down and groups of teachers were extracted, who demonstrated similar behaviours in the teaching process - similar profiles. On the basis provided by the latent profile analysis, five profiles were chosen for further analysis. The 59 teachers taking part in this section of the investigation were distributed over the five profile groups in such a way that there were 8, 9 26, 9 and 7 teachers in each respective group.

The characteristics of the five different teacher groups will be described briefly here.

Group 1 (eight teachers). The group is characterized by whole class teaching where the teacher is very active in putting questions and giving feedback. The teacher concentrates on cognitive activities and makes considerable use of study materials.

Group 2 (nine teachers). Student-centering is characteristic of this group. Behaviours noted here are "ego-strengthening", such as strong positive feedback and alertness to students' opinions, interests and experiences.

Group 3 (26 teachers). This group can be considered an average group and the profile is in agreement in all essential points with the average profile discussed earlier.

Group 4 (nine teachers). In this group the teaching process is characterized by disturbances and administrative activites. "Side-activities" and disciplinary measures are typical for the group.

Group 5 (seven teachers). The most noticeable feature in this group is that it gets the students to work with different activities at the same time and that the teacher moves around among the students, giving individual instruction and group teaching. The teacher behaviour in the teaching process is characterized by a high degree of student activity and by individual guidance from the teacher.

Bredänge and Odhagen summarize the analysis by saying. "that the analysis has produced three clearly distinguishable profile descriptions, namely profiles 1, 3 and 5, plus two profiles that are not so significant with regard to the teaching process but that demonstrate interesting features based primarily on behaviour categories with a low frequency".

The results of the latent profile analysis computations are very interesting from the aspect of lifelong learning. With regard to the development of attitudes and ability that provide a high level of preparedness for new learning and re-learning, groups 2 and 5 in particular are of great interest. These groups show that among the teachers there are some who display in the learning process behaviours that we consider favourable to the development of autodidactic ability in the students. Working on Bredänge's and Odhagen's interpretation, teacher group 2 can to a certain extent be said to satisfy our part-criteria D 1:2 "Opportunities for participating in the planning, execution and evaluation" and D 4 "Development of a favourable learning climate". Teacher group 5 appears mainly to satisfy our criteria D 1:1 "The individualization of the teaching", D 1:3 "Encouragement and opportunities for self-learning" and D 2 "Development of the ability to learn mutually from one another in a group".

Finally the teachers in group 1 can perhaps also be said to contribute to the satisfaction of some parts of our part criterion D 1:4 "Development of study techniques and communication skill" by their assiduous use of various study materials and energetic questioning.

The detailed picture of teacher behaviours given by Bredänge's and Odhagen's profile analysis is in our opinion much more hopeful than the general average profile. When average values are taken as the basis for an assessment of how well the intentions of the general part of the curriculum are put into practice, the experiences described here should be kept in mind. There is a lot that suggests that a corresponding analysis of sometimes dismal average results would give a more balanced and more positive picture of how the work done in the schools satisfies the demands made by the overall goals in the curriculum. This then also means that the demands brought to the fore by lifelong learning are starting to be reasonably well satisfied in some places. But we must at the same time remember that the study on which we have here based our assessment only dealt with the middle level of the basic school.

4.7 School work and the demand for the studies to be focussed on creativity, flexibility and equality

This criterion encompasses the three part-criteria included in the heading. We here report empirical material only for the criterion E 1 "Creativity". A certain amount of research has been done at the Department of Educational and Psychological Research, Malmö School of Education, around school activities likely to promote creativity. Eriksson (1972) has carried out classroom observations, focussing on teaching behaviours that can potentially promote creativity. The main aim of the study was to try out the observation schedule and assessment schedule, and to study possible relations between the teachers' way of teaching, assessed in accordance with the observation schedule and the students' results in creativity tests. A study was also made of possible relations between the assessment of the teachers' teaching and the students' results in creativity tests. 23 classes from six different school districts participated in the study. All the classes were from grade 6.

Thus the main purpose of the investigation was not primarily to study the extent to which activities promoting creativity occur in the school, but it is nevertheless possible to use the investigation to get some idea of this. Different forms of thought processe were studied and the frequency of these different thought processes during an average lesson in grade 6 could be mapped.

Thought process, R. with reproductive bias; recognize, learn by heart, remember. Examples. The teacher asks: "Do you remember?", "Do you recognize this?", "Do you remember this?" The teacher asks the student to read for information, listen for information. The teacher asks for terms, specific facts: asks the student to describe something or give an account of rules and laws.	66 %
Thought process, K. with convergent bias; norms for behaviour, right attitude, right solution. Examples: The teacher gives questions in which the right answer is expected, asks the student to solve a problem according to given prerequisites, encourages student to give the right answer.	25 %
Thought process, D. with divergent bias; being forced to obtain one's own facts in a situation lacking in information. Examples. The teacher tells the student to think for himself, stimulates his imagination; asks for several solutions; encourages unusual	

answers; asks the student for ideas; gives the student time to speculate. 4 %

Thought process, B. with assessment trend; evaluating critically, comparing, choosing, thinking. Examples. The teacher asks for opinions; asks the student to criticize suggestions, motivate opinions, discover weak points, question opinions, weigh arguments against each other to arrive at a personal opinion. 5 %

The percentages given after the descriptions of the thought processes shows how the thought processes mainly used in the school are those with a reproductive and convergent trend. The work is only to a minor extent focussed on creativity and flexibility. Thus we can ascertain that, according to this investigation, the intentions of the curriculum regarding the centering of studies on creativity and flexibility are followed relatively little. So creativity still holds a subordinate position in the school despite the intentions of the general section of the curriculum. Hansson (1974) states that "The predominance of 'adjustment-oriented' evaluations and a traditional teaching style, the division of the timetable into subject units and the often one-sided trend in textbooks to provide easily reproducible knowledge are all inhibiting factors, reinforced by the inadequacy of the outside environment, with its lack of constructive activities".

At the same time we would like to point out here that in these investigations, no attempts have been made at latent profile analysis as in the studies of didactic process analysis quoted earlier. A corresponding analysis would perhaps have shown that there is already a group of teachers working in a way likely to promote creativity.

In the creativity project special exercises have been constructed for the promotion of creativity in schools (Hansson, 1974). The exercises were constructed from material taken from the curriculum for grade 5 in the subjects Swedish, mathematics and general subjects and were tested in 34 classes in grade 5. Four experiment groups were given different kinds of influence. Pre-tests and post-tests were carried out in all the experiment and control groups. The results were summarized as follows in the report. "Effects of influence" could be ascertained in all four experiment groups. In general this applied not only to different types of creativity tests but also in several cases to tests of creativity-related behaviour and attitudes and to knowledge tests.

This supports the conclusion that the exercises improved the creative ability - not only the ability to respond better in creativity tests. The acquisition of knowledge has not, as many feared, been made more difficult by the creativity exercises, but has noticeably improved. This probably results from the fact that the students in the experiment groups worked with the material in a more active, penetrating and all-round way.

Supplementary analyses and checks show that no unequivocal differences in effect between different sex, intelligence and social groups could be found. Possibly, however, students of high intellectual capacity have a greater ability to profit from the exercises more generally.

What useful practical knowledge has the investigation provided? Briefly: It is possible with rather simple means to promote important parts of the school's goals. The exercises constructed represent a type of educational measure that melts naturally into the teaching, not requiring any extensive reorganization of the school situation, and can therefore be introduced relatively quickly".

5. SUMMARY AND DISCUSSION

In this report we have presented criteria for what we consider to be favourable to the development of lifelong learning in school. The general sections of the curricula for the basic school and the upper secondary school have been analyzed in the light of these criteria. The general sections deal with the overall goals of the school and express the trend of school policy in Sweden. The wording of the general sections is to a certain extent a compromise between different opinions on school policy and sometimes the wording is so vague and in such general terms that school principals, teachers and students can interpret them very differently. But there are also elements that express fundamental ideas in the school of the open society. When these ideas are converted into practical action, they can be of great importance for the nature of the school work. In our opinion these ideas, on which the politicians are agreed, are in addition fundamental to a positive development of lifelong learning.

In the curriculum for the basic school there is one section which we would like to point out particularly in this context. The section is to be found under the heading, "The internal work of the school" and under the first sub-heading, "Cooperation". Here it is stated: "All activities in the school take place in a social environment. In this environment it should be possible for the feeling of fellowship that is so important to the development of social attitudes and habits to be cultivated. In the school as in all places of work, the results of the activities depend on continuous cooperation between people. Even if it may vary in form, the will to cooperate, the attitude, is always extremely susceptible to influence from the environment. Cooperation in this sense must be developed into a social habit and working method, which imbues the work of the school and the relations between both individuals and groups. Good companionship and the will to good cooperation are prerequisites if the school is to be able to fulfil its task successfully. Everyone concerned should strive towards creating a situation in which this attitude towards cooperation could grow out of conditions that are as far as possible the same for everybody. The individual, regardless of age and assignment, should be able to feel himself co-responsible as a subject. The state of merely being the object of influence in a social or educational process is not compatible with the demand for cooperation on equal terms. This cooperation must be based on the adult's insight and experience plus the values of the young generation, even if the experience and maturity on which these values are founded are not very great. A close contact between individuals and groups at school is necessary for cooperation. This can be achieved in a number of ways. The work brings individuals and groups into meaningful contact in a natural way. Working together gives both teachers and students abundant opportunities for approaching each other and winning each other's confidence. Dialogue, or conversation, is an important form of cooperation. The school society, like any other society striving for greater cooperation, must use this easily accessible means. The adults in the school must always be aware of the risk that their association with the young people can consist solely of a monologue, there never being time for a constructive exchange of thoughts. Conversation between teachers and students should always be possible during the daily work, whether it concerns the teaching in the subject, other activities or individual relations between students and adults.

This form of contact and cooperation promotes mutual respect, based on insight into the expert knowledge and experience of the person with whom one is cooperating. The aim of the conversation is to create and retain mutual respect, even if one holds incompatible views and feels unable to compromise. The dialogue should deepen the feeling of fellowship irrespective of standpoints and values".

We have found this and a great deal more in the curricula favourable to the development of practical application of the ideas of lifelong learning. We have also found, however, that the positive expectations one has when studying the curriculum from the aspect of lifelong learning do not correspond to what actually happens in the everyday life of the school, even if the picture is by no means wholly black. But lifelong learning is not only dependent on what is stated in the curricula for the schools of children and adolescents or on what takes place in these schools. From the point of view of learning, the way in which people act after the completion of schooling in the basic school or the upper secondary school is also decisive for how the development of lifelong learning is to be assessed. Lifelong learning also depends on the pattern of adult education. Earlier we have emphasized that lifelong learning encompasses both formal and informal teaching models, both planned learning and that which happens by chance. With regard to formal, specially arranged education, recurrent education is of great importance in this context. Recurrent education is only one way of organizing the formal, specially arranged part of lifelong learning, but it gives outward administrative and economic stability to an important part of lifelong learning. This is positive as long as administrative and economic stability does not also entail central bureaucratic direction of study content and learning methods. Relatively good opportunities for recurrent education already exist within municipal adult education, labour market training, the internal training of industry and the university. The armed services have also in principle long arranged their training in the form of recurrent education. These forms of adult education can be of great importance for the development of an individual's interest in and capacity for lifelong learning in its wider sense. But if adult education is to have this effect, it is in our view necessary for it to be designed in such a way that it satisfies the criteria we have taken up here. The forms of adult education that at present appear to benefit lifelong learning best are the people's high schools ("folkhögskolor") and the adult education associations. But these forms can also be designed so that they to a greater or lesser extent obstruct a development of lifelong learning in its widest sense. The education given by the people's high schools and the adult education associations also represent the part of lifelong learning that is organized and more or less formalized. But these two forms of adult education probably have the best prospects of arranging their education in such a way that it develops the students' interest in and ability to make use of informal and often chance opportunities for learning, to utilize individually and in groups on one's own initiative the different opportunities offered by society for learning.

The debate on adult education has also descussed what is usually called bridging education. From the point of view of the concept of lifelong learning as presented in this report, great care must be taken in dealing with bridging education. This is because behind the demand for bridging education here is an exaggerated respect for formal school qualifications and a belittling of the experience given by life itself. At its most grotesque, the debate on bridging education has spoken of e.g. a fifty-year-old with six years elementary schooling as lacking the last three years of the present nine-year basic school. Bridging education for this fifty-year-old would according to this view correspond to the upper level of the basic school. In other words about 37 years experience of life would not compensate the loss of the upper level of the basic school. In reality no particularly well-developed capacity for lifelong learning is needed to learn during these 37 years more about how to deal with the problems of life than in the most brilliant basic school course. This argument does not mean that we do not realize that there are many people with little formal education who could benefit greatly from studies in the basic school and upper secondary school. What we want to bring to the attention of our readers, however, is that there are also many people with little formal education who, through their own ability to apply the ideas of lifelong learning have acquired very respectable levels of knowledge and proficiency without having gone through the courses and training schemes that formally provide qualifications and proficiencies of various kinds. We still know far too little about what lifelong learning outside studies governed by curricula or in organized courses can give. But we would here like to put forward the hypothesis that this free learning individually and in groups gives knowledge and skills that can in many respects match up to those acquired by means of special courses. But many more systematically gathered experiences of this are needed. It is remarkable however that the debate on lifelong learning has hitherto been conducted in Sweden on the assumption that lifelong learning only occurs in connection with specially arranged courses. As a result many of those participating in the educational debate have equated lifelong learning with recurrent education. Finally we wish to express the hope that this report will contribute to a development of the concept of lifelong learning and at the same time stimulate the debate on the concept in all its aspects.

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